

**STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION**

Illinois Bell Telephone Company)	
)	
Filing to increase Unbundled Loop and)	Docket No. 02-0864
Nonrecurring Rates)	
)	

SURREBUTTAL TESTIMONY OF

**MICHAEL STARKEY
WARREN FISCHER, C.P.A.**

On behalf of

AT&T Communications of Illinois, Inc.
WorldCom, Inc. d/b/a MCI
McLeodUSA Telecommunications Services, Inc.
Covad Communications Company
TDS Metrocom, LLC
RCN Telecom Services of Illinois, LLC
Globalcom, Inc.
Z-Tel Communications, Inc.
XO Illinois, Inc.
Forte Communications, Inc.
CIMCO Communications, Inc.

February 20, 2004

AT&T/JOINT CLEC EXHIBIT 1.2

**PUBLIC VERSION
CONFIDENTIAL DATA MARKED AS [*** _____ ***]**

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LIST OF ATTACHMENTS

Attachment MS/WF-20:	Final Transcript of SBC Communications Analyst Meeting
Attachment MS/WF-21:	SBC's Productivity Initiatives
Attachment MS/WF-22:	FCC RAO Letter 20

1 **I. INTRODUCTION**

2
3 **IA. INTRODUCTION OF WITNESSES**

4 **Q. MR. STARKEY, PLEASE STATE YOUR FULL NAME AND BUSINESS**
5 **ADDRESS FOR THE RECORD.**

6 A. My name is Michael Starkey. My business address is QSI Consulting, Inc., 243
7 Dardenne Farms Drive, St. Charles, Missouri 63304-1002

8
9 **Q. MR. FISCHER, PLEASE STATE YOUR FULL NAME AND BUSINESS**
10 **ADDRESS FOR THE RECORD.**

11 A. My name is Warren R. Fischer. My business address is 2500 Cherry Creek Drive
12 South, Suite 319, Denver, Colorado 80209.

13
14 **IB. PURPOSE OF TESTIMONY**

15 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN THIS DOCKET?**

16 A. Yes, we circulated direct testimony on May 6, 2003 regarding SBC's proposals for
17 Shared and Common costs, Annual Cost Factors ("ACFs"), investment factors,
18 Support Asset Factors ("SAFs"), inflation and productivity factors and fill factors. We
19 also circulated rebuttal testimony on January 20, 2004 addressing Staff's proposal to

remove support asset costs from the inputs into non-recurring rates and recommended that support asset costs be recovered through SBC's common cost factor.

Q. ON WHOSE BEHALF WAS THIS SURREBUTTAL TESTIMONY PREPARED?

A. This testimony was prepared on behalf of the following clients: AT&T Communications of Illinois, Inc., WorldCom, Inc. d/b/a MCI ("MCI"), McLeodUSA Telecommunications Services, Inc., Covad Communications Company, TDS Metrocom, LLC, RCN Telecom Services of Illinois, LLC, Globalcom, Inc., Z-Tel Communications, Inc., XO Illinois, Inc., Forte Communications, Inc., and CIMCO Communications, Inc.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. The purpose of our surrebuttal testimony is to address issues raised by the following Illinois Bell Telephone ("SBC" or "SBC Illinois") witnesses in their January 20, 2004 rebuttal testimony: Mr. David Barch, Mr. Timothy Dominak, Mr. William Palmer, Mr. James Smallwood and Mr. Randall White. We also address issues raised by the following Illinois Commerce Commission ("ICC") Staff witnesses in their January 20, 2004 rebuttal testimony: Dr. Qin Liu and Mr. Thomas Smith.

Our surrebuttal testimony will address the issues raised by each of these witnesses in the context of the following categories:

GLOBAL FACTOR ISSUE – REGULATED DATA

Messrs. Barch and William Palmer

SHARED AND COMMON COSTS

Messrs. Barch, Dominak, and William Palmer

ANNUAL COST FACTORS AND OTHER COST FACTORS

Mr. Barch

FILL FACTORS

Messrs. William Palmer, Smallwood and White and Dr. Qin Liu

II. GLOBAL FACTOR ISSUE – REGULATED DATA

Q. WHAT IS YOUR UNDERSTANDING OF SBC’S CONCERN REGARDING YOUR RECOMMENDATION TO REMOVE NON-REGULATED DATA FROM ITS SHARED AND COMMON COST FACTORS?

A. SBC witnesses Messrs. Barch and William Palmer proffer rebuttal testimony attempting to refute our testimony regarding the removal of non-regulated costs from SBC’s cost factor calculations. On pages 7-10 of his rebuttal testimony, Mr. Barch states that SBC deploys a single network, not a regulated network and a non-regulated network. He also states that the FCC’s accounting rules were adopted to serve their regulatory objectives and are not relevant for TELRIC purposes. Mr. Barch’s only concession is that it is necessary to adjust SBC’s ACFs to remove expenses in Account 6362

67 associated with customer premise equipment (“CPE”) because these expenses are
68 attributable to assets owned by SBC’s customers and not appropriately attributable to
69 SBC.

70
71 Mr. William Palmer focuses his criticism of our recommendation on a review of the
72 FCC’s cost allocation rules and the history of SBC cost studies as modified and
73 approved by the ICC. On pages 49 - 52 of his rebuttal testimony, Mr. William Palmer
74 claims that financial results reported to the FCC in Automated Reporting Management
75 Information System (“ARMIS”) report 43-03 cannot be used as a basis for TELRIC
76 cost allocations. Mr. William Palmer asserts that the FCC’s Part 64 rules on cost
77 allocation between regulated and non-regulated operations result in an arbitrary amount
78 of cost allocation to the non-regulated operations of SBC that is not consistent with
79 TELRIC objectives.

80
81 **Q. WHAT IS YOUR INITIAL RESPONSE TO THE REBUTTAL TESTIMONY**
82 **FILED BY MESSRS. BARCH AND WILLIAM PALMER ON THE ISSUE**
83 **OF NON-REGULATED COST DATA?**

84 A. Our initial response is that Messrs. Barch and William Palmer attempt to obfuscate the
85 primary objective of this proceeding: for the ICC to set rates that reflect forward-
86 looking, least-cost assumptions for wholesale UNEs. UNEs are classified by SBC as
87 regulated services and should not bear any costs that are more appropriately

88 attributable to SBC's non-regulated operations. The fact that the FCC's Part 64 cost
89 allocation rules have been primarily used in traditional ratemaking proceedings does not
90 render them inapplicable in TELRIC proceedings. The FCC's cost allocation rules
91 provide the ICC a tool to ensure that UNEs do not bear the costs of non-regulated
92 services, over which the ICC has little regulatory price control. Messrs. Barch and
93 William Palmer advocate rejecting our recommendation on the basis of economic
94 principles; however, their position is inherently inconsistent with an analysis performed
95 by SBC's economic witness, Dr. Debra Aron.

96
97 **Q. DID DR. ARON PREPARE A SIMILAR ANALYSIS USING REGULATED /**
98 **NON-REGULATED COST ALLOCATION DATA FROM ARMIS?**

99 A. Yes. On page 8 of her direct testimony, Dr. Aron explained how she used the interstate
100 allocation of *regulated* costs as a starting point for determining UNE loop and UNE-P
101 costs for her comparison of SBC's book cost to current UNE revenue. Dr. Aron
102 multiplied the interstate portion of common line costs contained in the ARMIS 43-01
103 reports by four to reverse out the effect of the FCC's allocation (actually, limitation) of
104 25% of loop costs to the interstate jurisdiction for rate purposes. Interstate costs in the
105 ARMIS 43-01 report are determined through the FCC's Part 36 rules governing the
106 separations process. The total costs subject to separation into interstate and intrastate
107 jurisdictions are *all regulated costs*. In fact, non-regulated costs are removed prior to
108 the separation process through the FCC's Part 64 rules. Consequently, Dr. Aron's

calculations are based strictly upon regulated costs. Dr. Aron's analysis is consistent with our recommendation that SBC's shared and common cost study and all other cost factor studies should include only regulated costs.

Q. WHAT IS YOUR RESPONSE TO MR. WILLIAM PALMER'S CLAIM ON PAGES 49-50 THAT THE FCC'S PART 64 COST ALLOCATION RULES RESULTS IN A SIGNIFICANT DISTORTION OF THE UNDERLYING RELATIONSHIP BETWEEN TELRIC COSTS AND THE AMOUNT OF SHARED AND COMMON COSTS REQUIRED TO SUPPORT THE PROVISION OF UNES?

A. Mr. William Palmer claims that the removal of non-regulated costs from SBC's shared and common cost calculation significantly distorts the shared and common cost factor relationship and results in under-recovery of shared and common costs. He further explains that shared and common cost loading factors represent a ratio of shared and common costs to total long-run incremental costs as measured by TELRIC. While he does not explicitly state how this relationship is reflected in SBC's shared and common cost study, he appears to describe the relationship of the pool of shared and common costs used in SBC's study with the direct cost denominator SBC calculates using portions of its UNE cost studies.

Mr. William Palmer has overstated the impact of our recommended adjustment. While he claims that removing non-regulated costs will result in a significant distortion and will lead to under-recovery of SBC's shared and common costs, he ignores the relatively small adjustment depicted in Attachment MS/WF-5 to our direct testimony. In our iterative series of adjustments, removal of non-regulated costs reduced the common cost factor by 4% or 23 basis points.¹ The shared cost factor is reduced by 5% or 18 basis points.² No distortion occurs (much less a significant one) because the same adjustment is made to both the direct cost denominator and the shared and common cost numerators. Clearly, these are not significant reductions and cannot result in significant under-recovery of shared and common costs. They are, however, reductions necessary to avoid a cross subsidy of non-regulated operations.

Q. HOW DO YOU RESPOND TO MR. WILLIAM PALMER'S CLAIM ON PAGES 50-51 THAT THE FCC'S PART 64 COST ALLOCATION RULES ARE BIASED TOWARDS ASSIGNING AS MANY COSTS AS POSSIBLE TO NON-REGULATED SERVICES?

A. Mr. William Palmer asserts that the non-regulated costs reported by SBC in its ARMIS 43-03 report do not represent the direct costs of providing non-regulated services.

¹ The recommended common cost factor is [*** XXX% ***] after making Adjustment No. 8 to remove non-regulated costs, as compared to the [*** XXX% ***] common cost factor that results after the cumulative effect of Adjustment Nos. 1-7.

147 Instead, he claims on page 50 of his rebuttal testimony that the FCC's Part 64 fully
148 distributed cost methodology is "... biased in the direction of assigning as many costs as
149 possible to non-regulated services in order to ensure that non-regulated services are not
150 being subsidized by regulated services." It is absolutely appropriate to remove non-
151 regulated expense and investment from the shared and common cost factor calculations
152 (as well as all other factor calculations) since these factors will be applied only to
153 regulated costs. As we noted on pages 112-113 of our direct testimony, the FCC
154 affirmed its use of these cost allocation rules to protect ratepayers from cross
155 subsidization in the TELRIC era in its *Account Safeguards Order*. The best method
156 available today to remove non-regulated costs is pursuant to the FCC's cost allocation
157 methodology contained in its Part 64 rules. It is SBC's Cost Allocation Manual,
158 developed and proposed by SBC to the FCC, which drives cost allocations. If SBC
159 believes that these cost allocations are inherently inaccurate, SBC should work through
160 the FCC to correct them. Absent some affirmative proposal from SBC to remove non-
161 regulated costs in a way it believes is more accurate, the Commission should adopt our
162 recommendation based on the FCC's existing cost rules.

² The recommended shared cost factor is [*** XXX% ***] after making Adjustment No. 8 to remove non-regulated costs, as compared to the [***XXX% ***] shared cost factor that results after the cumulative effect of Adjustment Nos. 1-7.

164 **Q. IF TOTAL NON-REGULATED REVENUE IS LESS THAN TOTAL NON-**
165 **REGULATED COST, DOES THAT INDICATE THAT NON-REGULATED**
166 **SERVICES BEAR A DISPROPORTIONATE SHARE OF TOTAL COSTS?**

167 A. No, not at all. By their very definition and nature, non-regulated services are virtually
168 free from regulatory oversight. As a practical matter, that means SBC has the freedom
169 to price its non-regulated services in a manner that ensures it recovers its cost and earns
170 an adequate profit. To the extent SBC cannot price these services even higher (or as
171 high as it would like to), perhaps it is the competitive pressures of the market that cause
172 SBC's perceived under-recovery and not an overstatement of costs.

174 **II. SHARED AND COMMON COSTS**

176 **IIA. Issues Affecting Both Shared and Common Costs**

177 **IIA (i). *Common Cost Numerator and Denominator***

179 **Q. ON PAGE 14 OF HIS REBUTTAL TESTIMONY, MR. BARCH ASSERTS**
180 **THAT THERE IS NO MISMATCH BETWEEN SBC'S COMMON COST**
181 **NUMERATOR AND THE DIRECT COSTS USED IN ITS COMMON COST**
182 **DENOMINATOR. DOES MR. BARCH EXPLAIN HIS POSITION?**

183 A. No. In fact, Mr. Barch simply reiterates the same arguments made in his direct
184 testimony that SBC's common cost numerator is forward looking based upon the very
185 limited number of adjustments SBC made to its book common costs. As we noted in
186 our direct testimony, however, SBC started with its book cost for all 67XX accounts
187 and then made three primary adjustments to these book costs in the common cost
188 numerator in its original filing to allegedly make its common costs "forward-looking."
189 First, SBC removed credits attributable to pension settlement gains recognized in 2001.
190 Second SBC added in a portion of support asset costs and mainframe computer costs it
191 determined were common in nature and should be included as common costs. Third,
192 SBC reclassified its Transitional Benefit Obligation (TBO) liability to common costs.
193 Prior to reclassifying them as common costs in its cost studies, SBC had previously
194 recorded these amounts as direct costs in SBC's accounting system. All three
195 adjustments in total more than doubled the common costs booked in the 67XX
196 accounts ([*** \$XXXXXX ***] on line 15 of SBC's shared and common cost study as
197 compared to the \$157 million reflected in the series 67XX accounts in SBC's 2001
198 ARMIS report). Clearly, SBC has made no attempt to adjust its overhead to reflect
199 the amount of forward looking common costs needed to support a forward-looking
200 network. Instead, SBC proposes to recover a static pool of common cost dollars, no
201 matter what may happen with respect to the firm's total output in the future.
202

**Q. HOW IS SBC'S COMMON COST DENOMINATOR INCONSISTENT
WITH ITS COMMON COST NUMERATOR?**

A. SBC's direct cost denominator in the shared and common cost study is based on its substitution of estimated "forward-looking" direct costs for the book costs attributable to switching and cable & wire investment. Since the common costs used by SBC in its common cost numerator are not truly forward-looking in any sense of the word, the use of "forward-looking" costs in the denominator creates a fundamental inconsistency between the numerator and the denominator. In Michigan Case No. U-13531, the Michigan Public Service Commission Staff filed comments on January 20, 2004 critiquing SBC Michigan's cost studies and TELRIC proposals. The Staff reviewed SBC Michigan's shared and common cost study, which utilizes the same methodology and assumptions SBC Illinois' uses in its shared and common cost study in this proceeding. The Michigan Staff found the following regarding SBC Michigan's numerator (common costs).

A review of the workpapers underlying SBC's calculation of its shared and common factors clearly show the use of 2001 historical year embedded FCC ARMIS expenses. SBC's use of historical information, now over two years old, is clearly inconsistent with the Commission's general cost methodology and cannot be accepted as forward-looking.³

³ See *In the matter, on the Commission's own motion, to review the costs of telecommunications services provided by SBC Michigan*, Case No. U-13531, Initial Comments of the Michigan Public Service Commission Staff, January 20, 2004, p. 13.

The Michigan Staff's comments on SBC Michigan's common cost denominator (direct costs) clearly outlined why there is inconsistency between its common cost denominator and its common cost numerator.

Staff's review of SBC's common cost proposal revealed a major flaw in the calculation of the common cost factor. SBC's common cost proposal in effect "guarantees" SBC a complete recovery of its embedded 2001 common costs in addition to the recovery of the additional costs proposed by SBC for amortized TBO, pension settlement gains elimination, and OSS testing expenses. The mechanism employed by SBC was simple. SBC used a denominator that is not properly matched to its numerator. It is essential to the proper determination of a common cost factor that both the numerator and denominator be matched in nature. The only two workable matches for the numerator and denominator would be either both embedded or both forward-looking. A common cost factor calculated using an embedded numerator and a forward-looking denominator should not be allowed. That is precisely the methodology proposed by SBC to calculate its common cost factor. Ideally, a common cost factor would be determined by using both a forward-looking numerator and a forward-looking denominator. SBC has not provided a calculation of forward looking common costs that could be properly used as the numerator. Either SBC's embedded numerator needs to be adjusted to reflect a forward-looking amount of common costs, or an embedded common cost numerator and denominator needs to be used.⁴

The Michigan Staff's criticisms of SBC's shared and common cost study are equally applicable to this case.

Q. HOW IS SBC'S COMMON COST DENOMINATOR INCONSISTENT WITH THE EXTENDED TELRIC CONCEPT REFERENCED BY MR.

⁴ Id., p. 17.

**BARC AS WELL AS WITH MR. BARC'S OWN DESCRIPTION OF
HOW TELRIC INVESTMENT IS CALCULATED?**

A. SBC's estimate of forward-looking direct costs in the shared and common cost denominator is inconsistent with the Commission's Order in ICC Docket No. 98-0396 -- to which Mr. Barch refers and relies upon -- because SBC's denominator understates the TELRIC investment produced by its UNE cost studies. Mr. Barch cites the Commission's findings on page 47 of its October 16, 2001 Order in Docket No. 98-0396 as support for SBC's proposal in this proceeding. In that Order the Commission found that the shared and common cost loading factors Ameritech Illinois calculated using shared and common costs, revised for Commission-required adjustments and relative, extended TELRICs, satisfied the Commission's TELRIC order. Mr. Barch alludes to a similar process on page 14 of his direct testimony, where he describes replacing the book value for investment with current replacement values and then substituting forward-looking switching and cable & wire investment for the current replacement cost of these plant assets. Mr. Barch stated that this estimate of forward-looking switching and cable & wire investment was determined by multiplying forward-looking per unit investments by current Illinois demand.

274 SBC's cable & wire investment restated to current replacement cost represents
275 approximately 46% of its Total Plant In Service restated to current replacement cost.⁵
276 SBC calculates the TELRIC investment of cable and wire facilities by multiplying the
277 per unit investment produced by its UNE loop studies by [*** XXXXXX***] loops.
278 SBC claims that this number is based on 2001 data used for SBC's NECA USF
279 submission.⁶ However, we reviewed loop counts for SBC Illinois in its USF
280 submissions since 1998⁷ and were not able to find support for this number. In fact, total
281 loop count in the 2001 NECA USF data is approximately half a million loops higher
282 than the number SBC used in its shared and common cost model.
283
284 Further, for its per unit investment SBC uses values for its cheapest 2-wire loop.⁸ In
285 other words, SBC estimates the cost of a network that is composed of only basic 2-
286 wire loops, thus ignoring costs of its more expensive loops and services such as xDSL,
287 4-wire loops, DS1 and high-capacity loops. For example, in SBC's LoopCAT studies,
288 cable and wire investment for 4-wire analog loops is two times higher than cable and
289 wire investment of a 2-wire loop, while DS1 loops require not only higher investment,
290 but also a different plant mix – more underground and conduit facilities compared to a

⁵ This percentage is calculated by dividing the current cost of cable & wire investment on Line 63, column H ([*** \$XXXXXXXX ***) by Total Plant In Service on Line 65, column H ([*** \$XXXXXXXXXX ***) on Tab 3 – Calculations of its shared and common cost study.

⁶ SBC's Shared and Common cost study file, Tab 2-Inputs, cell B230.

⁷ Data source is the FCC web site, <http://www.fcc.gov/wcb/iatd/neca.html>, Universal Service Fund Data: NECA Study Results

⁸ See Barch direct testimony, p. 14, line 292.

2-wire loop. This exclusion of costs for more expensive loops causes a significant understatement in the amount of direct costs SBC uses in its denominator.

Because SBC's attempt to calculate an appropriate extended TELRIC-based direct cost denominator is woefully inadequate and does not result in substantiated, forward-looking direct costs, our recommendation to use book investment restated to current replacement cost is the only viable data to use in SBC's shared and common cost denominator.

IIB. Issues Affecting Common Costs

IIB (i). Allocation of Common Costs

Q. MR. BARCH CLAIMS ON PAGES 15-18 THAT AMOUNTS RECORDED IN SBC'S 67XX ACCOUNTS ARE CLASSIC "COMMON OVERHEAD" ACCOUNTS AND THAT NEARLY ALL AMOUNTS RECORDED IN THESE ACCOUNTS CANNOT BE "ECONOMICALLY" ALLOCATED TO MAKE THEM FORWARD-LOOKING. PLEASE COMMENT ON THIS STATEMENT.

A. Mr. Barch claims that virtually the entire amounts recorded to its 67XX accounts cannot be allocated between common and direct costs. He considers amounts recorded to these accounts as "classic overhead." This is certainly true from an historic cost

perspective. However, in a forward-looking cost proceeding such as this one, while historic book costs can be and are used as a starting point for a forward-looking cost calculation, these historic book costs must be examined in significant detail to ascertain (1) what costs are appropriate for recovery in any type of rate proceeding and (2) whether allowable costs are appropriately allocated according to TELRIC principles.

For example, the revisions Mr. Barch voluntarily made at the recommendation of Staff witness Dr. Patrick represent historic costs that it are not appropriate to include in a forward looking cost study and to recover in a forward looking environment.

Therefore, it is unreasonable to assume – as SBC does – that the entirety of SBC’s book values for its 67XX accounts represent allowable, forward-looking common costs in this proceeding.

Q. ON PAGE 18 OF HIS REBUTTAL TESTIMONY, MR. BARCH OPINES THAT SBC’S 67XX BOOK COSTS SHOULD BE CONSIDERED COMMON UNLESS THE JOINT CLECS PRESENT DETAILED EVIDENCE TO THE CONTRARY. DO YOU AGREE WITH HIS OPINION?

A. Absolutely not. What Mr. Barch suggests is a complete and dramatic shift in the burden of proof from SBC to the Joint CLECs. This Commission has previously advised SBC that it alone is required to bear the burden of proving that its proposed rates are just and reasonable and TELRIC-compliant under the Illinois Public Utilities Act.⁹ Despite the

⁹ Id., p. 34.

undisputed fact that SBC clearly bears the burden of proof here, the Joint CLECs have demonstrated that SBC includes costs that should be disallowed altogether from SBC's common cost methodology, and that certain costs included by SBC are not common costs at all but are more appropriately allocated as direct costs. Of the series of 10 adjustments we recommended in Attachment MS/WF-5 to our direct testimony, nine of these adjustments impact the common cost calculation in some way. Our recommended adjustments to remove SBC's TBO obligation, to add back pension settlement gain credits, and to remove non-regulated costs are all examples of specific adjustments to SBC's common costs. These examples also directly refute claims made by Mr. William Palmer on page 43 of his rebuttal where he stated that we made no specific criticism of the amounts included in the common cost numerator or denominator. A review of our testimony overwhelmingly demonstrates that this is far from the truth.

Q. MR. DOMINAK MAKES A SIMILAR CLAIM THAT THE ENTIRETY OF SBC'S BOOK EXPENSE IN ITS 67XX ACCOUNTS SHOULD USED IN SBC'S COMMON COST CALCULATION. DO YOU AGREE?

A. No. On page 4 of Mr. Dominak's rebuttal testimony, he asserts that the FCC's Part 32 accounting rules "... obviate the need to exclude particular entries from 67XX account balances." Mr. Dominak apparently believes that allocating any portion of the 67XX account balances to specific services would destroy the functionality principle

353 inherent in the FCC's Uniform System of Accounts. Mr. Dominak's position is totally
354 without merit because he attempts to use the FCC's Uniform System of Accounts,
355 which were not crafted or designed with a forward looking, TELRIC construct in mind,
356 to unreasonably constrain the Commission's judgment on what common costs are
357 appropriate in a forward-looking construct. The FCC's accounting rules are not
358 designed to predetermine whether costs are just and reasonable. These rules simply
359 describe how costs should be recorded. Moreover, suggesting that SBC's book 67XX
360 expenses should be accepted at face value is inconsistent with previous decisions made
361 by this Commission and other state commissions across the country. On pages 51-52
362 of its *Second Interim Order* in Docket No. 96-0486/0569, the Commission
363 specifically rejected and disallowed a number of expenditures as unacceptable for cost
364 recovery by either retail or wholesale customers. The Commission disallowed the
365 recovery of over \$23 million in expenditures for golf tournaments, skyboxes and White
366 House functions as well as over \$292 million in retail-related expenses.¹⁰ This amount
367 of over \$300 million in costs had been characterized by SBC as common costs (and
368 SBC had proposed to recover them from CLECs) in Docket No. 96-0486/0569. Mr.
369 Dominak's recommendation, however, would preclude the removal of expenses in this
370 proceeding similar to those already rejected by the Commission in the prior TELRIC

¹⁰ See *Illinois Commerce Commission On Its Own Motion Investigation into forward looking cost studies and rates of Ameritech Illinois for interconnection, network elements, transport and termination of traffic. Illinois Bell Telephone Company Proposed rates, terms and conditions for unbundled network elements*. Docket Nos. 96-0486/96-0569 Consolidated, Second Interim Order issued February 17, 1998, pp. 51-52. ("*Second Interim Order*").

proceeding. Mr. Dominak's recommendation to hamstring the ability of this Commission to remove common costs that are inappropriate, embedded and/or unreasonable should be rejected out of hand.

Q. ARE THE SHARED AND COMMON COST STUDY REVISIONS MR. BARCH MADE IN THE REBUTTAL PHASE OF THIS CASE SUFFICIENT TO MAKE SBC'S COMMON COST NUMERATOR FORWARD-LOOKING?

A. No. Mr. Barch adjusted SBC's shared and common cost study to incorporate the recommendations of Staff witness Dr. Melanie Patrick to remove OSS testing expense, Tier 1 Remedy Payments and Digital Divide expenses. See Barch Rebuttal, pages 75-76. While these adjustments are certainly a step in the right direction, they are not sufficient -- without more -- to make SBC's common costs forward-looking, for the reasons outlined in our direct testimony.

Q. EXCEPTING THE RECOMMENDATIONS OF DR. PATRICK THAT SBC HAS AGREED TO MAKE, IN ADDITION TO THE SPECIFIC COMMON COST ADJUSTMENTS YOU RECOMMEND IN YOUR DIRECT TESTIMONY, ARE THERE OTHER SPECIFIC REQUIRED ADJUSTMENTS OF WHICH SBC IS AWARE BUT NONETHELESS DECLINED TO MAKE?

A. Yes. In our review of SBC's common costs in another TELRIC proceeding subsequent to the date we circulated our direct testimony in this case, SBC acknowledged that the book balance recorded in one of its 67XX accounts was overstated due to an accounting misclassification. In Michigan Case No. U-13531, SBC noted that the amount it recorded to Account 6711 (Executive expense) was abnormally high compared to amounts incurred in the years 2000 and 2002 due to an accounting classification error.¹¹ Through AT&T Data Request MS-130 (reproduced below), we confirmed that same error was made by SBC Illinois in this case.

AT&T DATA REQUEST MS-130

REQUEST

In Michigan Case No. U-13531, SBC Michigan noted that the balance recorded in Account 6711 (Executive) for the year 2001 was overstated due to an accounting misclassification. This was admitted in SBC's response to AT&T Data Request ATTSBC 964 (MS-115):

AT&T DATA REQUEST MS-115 IN MICHIGAN

The amount recorded by SBC Michigan for Executive expenses in Account 6711 for the years 2000–2002 is as follows from the ARMIS 43-02 report, Table II:

	2000	2001	2002
6711 - Executive	3,707	20,621	4,273

Please identify all sources of the increase in expense for 2001 versus the years 2000 and 2002.

¹¹ SBC acknowledged this accounting error in response to AT&T Data Request ATTSBC 964 (MS-115).

RESPONSE

The 2001 increase is attributable to affiliated expenses that were inadvertently booked to 6711 in 2001. The expenses related to costs incurred in selling Industry Markets products and services which should have been charged to 6612 and costs incurred in establishing and servicing the Industry Markets customer accounts that should be charged to 6623 were inadvertently booked to 6711 in 2001. This misclassification was noted subsequent to the final closing of the books and records and was changed on a going forward basis.

Account 6711 for SBC Illinois appears to have the same misclassification for the year 2001 as seen in the amounts below from the ARMIS 43-02 report, Table I1:

	2000	2001	2002
6711 - Executive	5,098	26,038	6,889

Please confirm or deny that SBC Illinois' explanation of the variance between 2001 and the amounts in 2000 and 2002 is the same as SBC Michigan's. In responding to this request, SBC Illinois should state what the correct amount for the year 2001 should have been, and whether it will revise its Shared & Common cost study for this accounting error.

RESPONSE (amounts in thousands)

[*** BEGIN CONFIDENTIAL ***]

XXX
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XXXXXXXXXXXXXXXXXXXXXXXXXXXX

[*** END CONFIDENTIAL ***]

The 2001 balance in Account 6711 was \$26 million as compared to \$5.1 million in 2000 and \$6.9 million in 2002. SBC's response to AT&T Data Request MS-130 notes that the 2001 balance should have been [*** \$XXXXX ***]. Since SBC did not become aware of this misclassification until after it had closed its books for the year 2001, the only change SBC made was prospective to subsequent years. SBC could have easily corrected the 2001 Account 6711 data upon which its shared and common cost study is (in part) based in the direct phase of this case. SBC's inaction on this issue in the rebuttal phase of this case is even more disturbing given the fact that Mr. Barch was obviously aware of this error prior to submitting a revised shared and common cost study with his rebuttal testimony, yet he affirmatively chose not to make this necessary correction. This is another example of an adjustment that SBC could have and should have made had it conducted a detailed review of its 67XX accounts. The Commission should order that this adjustment be made.

482 **Q. ON PAGES 17-22 OF HIS REBUTTAL TESTIMONY, MR. BARCH**
483 **ATTEMPTS TO DISCREDIT EXAMPLES OF COSTS THAT SHOULD BE**
484 **ALLOCATED AS DIRECT COSTS TO RETAIL SERVICES OR SHOULD**
485 **BE ALLOCATED TO OTHER WHOLESALE SERVICES. HOW DO YOU**
486 **RESPOND TO MR. BARCH’S ASSERTIONS?**

487 A. Mr. Barch prefaces his specific criticisms of our examples by first stating on page 19 of
488 his rebuttal testimony that an activity does not have to advance the CLECs’ interests
489 with respect to UNEs to be considered an appropriate common cost. Mr. Barch cites
490 UNE legislation expenses as an example of costs that are UNE-related and are,
491 therefore and in his view, appropriately recoverable through UNE rates. As we
492 previously noted on pages 37-38 of our direct testimony, this Commission has noted the
493 following:

494 ... Moreover, we believe that in an increasingly competitive
495 environment it would be an inappropriate policy to impose upon
496 new entrants increased costs of doing business which are solely
497 attributable to the discretionary actions of Ameritech and which
498 provide no direct and essential benefit to the UNE purchaser.¹²
499

500 Clearly, legislation sponsored by SBC such as Illinois Senate Bill 885, which was
501 designed solely to increase to rates that SBC can charge for its UNE services, provides
502 no direct and essential benefit to CLECs. (Certainly, the Commission would *never*
503 allow such legislative expenses in setting *retail* rates.) In fact, this same standard of

¹² See *Second Interim Order*, p. 51.

what is and what is not an allowable expense for TELRIC purposes applies to the other numerous examples discussed in our direct testimony.

Q. HOW WOULD THE COMMISSION'S STANDARD ON APPROPRIATE TELRIC EXPENSES APPLY TO LEGAL COSTS THAT THE COMMISSION HAS PREVIOUSLY ALLOWED?

A. Mr. Barch describes the various legal costs that SBC incurs in the provision of UNEs as well as its other operations. The Commission previously found that costs associated with interconnection negotiations, complaint cases, arbitrations and cost dockets can be recovered through UNE rates.¹³ The Commission characterized these costs as those incurred by Ameritech Illinois to satisfy the requirements of the Act to negotiate and arbitrate with competitors at the competitors' requests. At the time Docket Nos. 96-0486/96-0569 (consol.) was litigated, Ameritech Illinois (now SBC) was required to incur significant costs to unbundle its network and set cost-based prices in accordance with the Act and the FCC's *Local Competition Order*.

However, the circumstances are different in this proceeding than they were during the previous TELRIC case. The Commission there set cost-based UNE rates, many of which have been in effect since at least 1998. SBC has now taken the offensive by filing cases such as this one and sponsoring legislation to increase the rates set by state

¹³ Id., p. 52.

524 commissions across the country. It is SBC's discretionary actions that are causing
525 many of these legal expenses that SBC incurs. The CLECs have not initiated this latest
526 round of litigation. CLECs should not have to pay for SBC's efforts to drive them out
527 of the local exchange market. Additionally, expenses attributable to disputes cause by
528 SBC's poor performance are fully within SBC's control. To the extent its poor quality
529 of service forces CLECs to seek legal remedies, SBC – and not the CLECs -- should
530 bear the cost of such dispute resolutions.

531
532 **Q. HOW DO YOU RESPOND TO MR. BARCH'S CLAIM THAT SBC'S**
533 **ACCOUNT 6722 EXPENSES INCLUDE UNE TARIFF AND REGULATORY**
534 **COSTS?**

535 A. Mr. Barch may be correct in his description of what takes place within SBC's
536 operations. However, SBC has provided no direct evidence that contradicts the cost
537 activity description provided in our direct testimony. Based on what has been filed to
538 date in this proceeding, SBC can point to no evidence that refutes the fact that the
539 majority of its external relations costs support or protect its retail operations and not its
540 wholesale operations. Indeed, its own cost activity description confirms that these retail
541 costs are, in fact, contained in Account 6722. SBC has the ability to identify those
542 external relations (Account 6722) expenses that are directly attributable to its retail
543 operations and those external relations expenses that are directly attributable to its
544 wholesale operations. We have no way of knowing whether the costs associated with

SBC's retail services are disproportionate to those it incurs in connection with its wholesale services, including UNEs. SBC has failed to adequately disclose the information necessary for the Commission to make a determination of allowable costs. Consequently, SBC should be required to provide a breakdown of those costs contained in Account 6722 that are attributable to retail and those costs contained in Account 6722 that are attributable to wholesale services in general and UNEs in particular so that the Commission can make an informed decision.

IIB (ii). Use of Avoided Cost Discount

Q. MR. BARCH CLAIMS ON PAGE 23 OF HIS REBUTTAL TESTIMONY THAT YOU HAVE NOT JUSTIFIED WHY REMOVING [* XXX% ***] OF COMMON COSTS THROUGH THE AVOIDED DISCOUNT FACTOR IS APPROPRIATE. DO YOU AGREE?**

A. No. First of all, we noted on page 41 of our direct testimony that our recommendation to use the avoided cost discount is conservative because it only identifies retail costs that would be avoided in a wholesale-only environment. It does not identify those retail-like costs that would still occur even in a wholesale-only operation, such as tariff filings. Secondly, SBC's avoided cost methodology recognizes that a significant portion of its total avoidable costs is corporate operations expenses from its 67XX accounts. In the currently pending TELRIC case in Michigan, SBC filed an avoidable cost study to

566 revise the currently effective avoided cost discount in Michigan.¹⁴ This cost study is
567 designed to calculate total avoided costs in a three-step process. SBC first calculates
568 the percentage of avoided direct costs as compared to total direct operating expenses.
569 Step two applies the direct avoided cost percentage to the total book cost of its
570 corporate overhead in the 67XX accounts. Step three identifies the avoided
571 uncollectible costs. All three avoided cost calculations are then summed to determine
572 total avoidable costs.

573
574 The direct avoided cost percentage in SBC Michigan's avoided cost study is only a few
575 percentage points lower than the total avoided cost discount percentage. Through its
576 own avoided cost methodology, then, SBC itself recognizes that a significant portion of
577 its common cost expense can be identified as avoidable retail costs by applying an
578 avoided cost factor. We have simply used the best Illinois-specific information available
579 to approximate SBC's avoidable common costs in the absence of a more detailed
580 showing by SBC.

581
582 **Q. IS A SIMILAR ADJUSTMENT TO SBC'S COMMON COST**
583 **DENOMINATOR REQUIRED TO REMOVE DIRECT COSTS**

¹⁴ See *In the matter, on the Commission's own motion, to review the costs of telecommunications services provided by SBC Michigan*, Case No. U-13531, Direct Testimony of Thomas Makarewicz, Confidential Exhibit TJM-2.

**ATTRIBUTABLE TO RETAIL OPERATIONS AS MR. BARCH CLAIMS
ON PAGE 24 OF HIS REBUTTAL TESTIMONY?**

A. Perhaps. The need for such an adjustment depends upon whether any of the accounts SBC used in denominator contain avoidable retail costs. To investigate the merit of Mr. Barch's argument, we examined the avoided cost study methodology used by SBC in its Michigan TELRIC filing. The only account included in both SBC's common cost denominator and its avoidable cost calculation is Account 6623 (Customer Services). The other accounts that SBC identifies as having avoidable costs are the marketing accounts: 6611 (Product Management), 6612 (Sales), and 6613 (Product Advertising). However, SBC has already excluded the entirety of these accounts from its denominator because these accounts are included in its shared cost numerator.

SBC considers the vast majority of its Customer Services expense to be avoidable cost. Therefore, a similar adjustment could be made to remove the avoidable costs from the common cost denominator. While we do not have the appropriate information to make a specific adjustment, we removed the entire account balance to determine the impact it would have on our recommended adjustment, hypothetically. Even then, our recommendation would still result in a net reduction in SBC's common cost factor.¹⁵

¹⁵ The common cost factor after our Adjustment No. 4 (Merger Savings) is [*** XXX% ***] and [*** XX% ***] after our original Adjustment No. 5 (Avoided Cost Discount). Removing [*** \$XXXXX ***] attributable to Account 6623 (Customer Services) from Tab 3 Calculations (SBC), cell M167, increases the common cost factor in Adjustment No. 5 to [*** XXX% ***], which is an increase of [*** XX ***] basis points.

602
603 **Q. MR. WILLIAM PALMER CLAIMS ON PAGES 46-47 OF HIS REBUTTAL**
604 **TESTIMONY THAT YOUR PROPOSAL TO USE THE AVOIDED COST**
605 **DISCOUNT WAS FOUND TO BE OVERLY SIMPLISTIC AND**
606 **METHODOLOGICALLY SUSPECT BY THIS COMMISSION IN DOCKET**
607 **NOS. 96-0486/96-0569 (CONSOL.). HAS HE ACCURATELY COMPARED**
608 **YOUR PROPOSAL TO AT&T/MCI'S PROPOSAL IN THE PREVIOUS**
609 **TELRIC CASE?**

610 A. No, he has not. A plain reading of the entire page of the *Second Interim Order* that
611 Mr. William Palmer cites (page 49) indicates that the Commission was primarily critical
612 of one component of AT&T/MCI's forward-looking efficiency adjustment, which
613 applied a factor of 55% to account for the forward-looking common costs Ameritech
614 Illinois would incur as an efficient provider. The context of this concern was with
615 AT&T/MCI's criticism of Ameritech Illinois for not having its consultant, Arthur
616 Andersen, conduct an efficiency review to ensure that its shared and common costs
617 adequately reflected the least-cost, most efficient practices and technology currently
618 available. We have made no such recommendation in this proceeding.

619
620 The second component of AT&T/MCI's recommendation in the prior case was to use
621 the same avoided cost discount as we are recommending in this proceeding. While Mr.
622 William Palmer claims that we have recycled and dressed-up the same complaints made

in Docket Nos. 96-0486/96-0569 (consol.), the circumstances are different. Our direct testimony contains numerous examples of specific, quantifiable adjustments that should be made. It also contains numerous examples of the types of activities that CLECs should not have to pay for. However, it is SBC that holds the information and the resources to identify the costs associated with such activities. Our recommendation is only an alternative to the type of detailed review that only SBC can perform. It is also a way for the Commission to remove retail direct costs from the calculation of UNE prices without requiring SBC to perform an independent management audit that the Commission found to be an unreasonable requirement on page 49 of the *Second Interim Order*.

Q. IS MR. BARCH'S AND MR. WILLIAM PALMER'S CRITICISM OF YOUR USE OF THE AVOIDED COST DISCOUNT FACTOR TO REMOVE RETAIL DIRECT COSTS INCONSISTENT WITH SBC'S OWN TESTIMONY IN THIS PROCEEDING?

A. Yes, it is. SBC witness Dr. Debra Aron also uses an avoided cost discount to remove retail costs from ARMIS data when performing her UNE cost calculations at pages 9-10 of her direct testimony, recognizing, as do we, that such an adjustment is necessary and appropriate. While Dr. Aron contends that the current avoided cost discount likely overstates the amount of retail costs a firm is likely to avoid, it is SBC that has the ability

to calculate a more precise amount of avoided costs from its financial records. Absent such information, the avoided cost discount is the best information currently available.

IIB (iii). Transition Benefit Obligation

Q. WHAT IS THE FUNDAMENTAL DIFFERENCE BETWEEN YOUR POSITION AND SBC'S POSITION ON SBC'S TBO EXPENSE?

A. The difference between our position and SBC's position on TBO expense can be summarized as follows: SBC focuses on the accounting-based impact of its obligation to accrue for post-retirement benefits other than pensions for its current and retired base of employees as of 1991. We focus on the forward-looking economic substance of SBC's obligation.

When the Financial Accounting Standards Board ("FASB") implemented SFAS 106 for financial reporting purposes, and as Mr. Dominak noted on page 6 of his rebuttal testimony, the former Ameritech Corporation had a choice of immediately recognizing the transitional benefit obligation ("TBO") created by complying with SFAS 106 or deferring recognition over the average remaining service life of its active plan participants. Mr. Dominak focuses on what Ameritech did to comply with FCC requirements that the deferred recognition method be used *for federal regulatory accounting purposes*. What Mr. Dominak fails to mention is that Ameritech

664 *immediately recognized* the entire amount of the TBO on its financial books of
665 account in 1992 as disclosed in Note 4 to the consolidated financial statements in its
666 1993 Form 10-K that SBC (then Ameritech) filed with the Securities Exchange
667 Commission:

668 In adopting SFAS No. 106, the company elected to immediately
669 recognize, effective January 1, 1992, the transition obligation for
670 current and future retirees. The transition amount was \$2.6
671 billion net of the then estimated fair value of plan assets of \$825
672 million. The charge to income was **\$1.65 billion** net of a
673 deferred tax benefit of \$950 million. [emphasis added]
674

675 While Ameritech recorded a fairly sizable expense in 1992 for the amounts it needed to
676 accrue to “catch-up” to its new post-retirement obligation for financial statement
677 accounting purposes, it continues to recognize this one-time expense in its current
678 accounting records only because the FCC, in setting SBC’s *interstate rates*, required it
679 to recognize its obligation on a straight-line basis over the average remaining service
680 period of active plan participants, or over 20 years if this period was less than 20 years.
681 SBC’s TBO was a one-time liability associated with an accounting principle change that
682 occurred over a decade ago. This is not a “forward looking” expense; instead it is a
683 non-economic cost with no cash flow implications. It is an accounting recognition of
684 past expenses for employee years of service *prior to 1991*. Certainly, these expenses
685 are not expected to occur, and will not occur, in the future (or, for that matter, even in
686 the present).
687

688 In fact, the FCC has disallowed these expenses for the purpose of setting interstate
689 rates. As noted above, in 1991, there was an accounting rule change that required
690 SBC and other carriers to alter the way they reflect post-retirement obligations other
691 than pensions (“other post-retirement employee benefits,” or OPEBs) on their books.
692 To make this change, carriers had to include in their accounting books a “transitional
693 benefit obligation,” which is merely a “catch-up” accounting mechanism meant to clearly
694 identify certain liabilities related to employee work efforts *prior* to 1991.

695 This accounting change had absolutely no impact on any carrier’s actual cash-flow, nor
696 will it have any effect on any carrier’s cash flow in the future. As the FCC explained,
697 “LECs are not required [by SFAS 106] to change their OPEB commitments to
698 employees, but merely to change the timing of the recognition of these costs on their
699 books.” First Report and Order, *Price Cap Performance Review for Local*
700 *Exchange Carriers*, 10 FCC Rcd. 8961, ¶ 307 (1995) (“*1995 Price Cap*
701 *Performance Order*”). “[A]lthough accounting books may have changed,” “cash flow
702 remains unchanged.” *Id.*

703 Accordingly, since 1995, the FCC has prohibited any carrier from including such
704 OPEB-related costs in the interstate rates regulated by the FCC, because such
705 accounting changes have absolutely no economic cost impact. *Id.* ¶ 308.

To include the TBO in UNE rates would violate the FCC's pricing rules which permit
"only those costs that are incurred" to be reflected in UNE rates. *Local Competition*
Order ¶ 691.

**Q. DOES THE FCC RAO LETTER RELIED UPON BY MR. DOMINAK
DESCRIBE THE TBO AMORTIZATION AS A FORWARD-LOOKING
COST?**

A. No. Mr. Dominak cites an FCC letter issued to Responsible Accounting Officers of the
industry carriers as evidence that the FCC considered TBO amortization to be an
ongoing expense that must be accounted for in SBC's forward-looking cost studies.¹⁶
Examination of this letter reveals that the purpose of the letter was to provide guidance
on the Part 32 accounts carriers should use to record the effects of SFAS 106 on their
regulatory books of accounts.¹⁷ The FCC also prescribed the amortization period of
the transition obligation to be the average remaining service period of active plan
participants, or 20 years if this period is less than 20 years.¹⁸ The fact that the FCC
required carriers to defer recognition of their TBO obligation over a number of years
does not imply that an expense is forward-looking. An expense is considered forward-

¹⁶ See Rebuttal Testimony of Timothy Dominak, pp. 6-7 and footnote 1 citing FCC RAO Letter 20 released May 4, 1992. This letter is included as Attachment MS/WF-22 to our surrebuttal testimony.

¹⁷ See *In the Matter of Southwestern Bell and GTE, Notification of Intent to Adopt Statement of Financial Accounting Standards No. 106, Employers' Accounting for Postretirement Benefits other than Pensions*, CC Docket No. AAD 91-80, released December 26, 1991; FCC RAO Letter 20, released May 4, 1992, p. 1, included as Attachment MS/WF-22.

¹⁸ *Id.*, p. 2.

723 looking in a TELRIC construct if it reflects what an efficient carrier would incur today to
724 provision UNEs. It does not and should not reflect SBC's recovery of obligations
725 deferred for regulatory purposes.

726
727 Since this RAO Letter was issued in 1992, it preceded the Telecommunications Act of
728 1996 and the FCC's creation of TELRIC principles for determining forward-looking
729 costs of unbundled network elements. Instead, the guidance issued by the FCC was to
730 ensure consistency among carriers reporting to the FCC for interstate ratemaking
731 purposes. While Mr. Dominak contends that the FCC's deferred recognition
732 requirement somehow implies that the FCC considers this obligation to be forward-
733 looking, our review of this letter finds no such implication whatsoever.

734
735 **Q. DOES MR. DOMINAK'S RELIANCE UPON THE FCC'S RAO LETTER 20**
736 **RAISE ANOTHER ISSUE THAT CONTRADICTS SBC'S TBO PROPOSAL**
737 **IN THIS PROCEEDING?**

738 **A.** Yes, it does. While Mr. Dominak is adamant about his interpretation of the FCC's
739 intent on page 7 of his rebuttal testimony, he fails to note that SBC's proposal in this
740 proceeding diverges from the FCC's prescribed accounting guidance. Mr. Dominak
741 notes that the recognized expense from the TBO obligation is spread over plant specific
742 accounts based on the work performed. Yet SBC chose to remove the expense it
743 recorded to these plant specific accounts for accounting purposes and add the entirety

of the expense to its common cost calculation. This contradicts the FCC's accounting guidelines. SBC cannot use the FCC's accounting guidance to buttress SBC's forward-looking classification of TBO and then disregard that same accounting guidance to reclassify the recognized TBO as it sees fit. Thus, the TBO should be excluded altogether from SBC's cost studies because it is not forward looking. To the extent the Commission disagrees, these expenses should remain in their current accounts and should not be reclassified as common costs.

**Q. ARE THE PREVIOUS COMMISSION DECISIONS ALLOWING TBO
EXPENSE RELEVANT IN THIS PROCEEDING?**

A. No. Mr. Dominak cites to previous Commission decisions on page 8 of his rebuttal testimony. In each instance cited, the decision was rendered prior to the date of the Act. None of these decisions were in proceedings decided in accordance with forward-looking TELRIC principles. Instead, they all appear to have been traditional ratemaking proceedings based on embedded or accounting costs. Certainly, the electric utility rate decisions cited by Mr. Dominak have no applicability to setting rates in a TELRIC context. Therefore, the Commission should give no weight to these prior decisions in this proceeding.

IIB (iv). Pension Settlement Gains/Losses

765 **Q. WHAT IS THE FUNDAMENTAL DIFFERENCE BETWEEN YOUR**
766 **POSITION AND SBC'S POSITION ON RECOGNIZING PENSION**
767 **SETTLEMENT GAINS?**

768 A. As noted in our direct testimony, SBC has consistently experienced pension settlement
769 gains of varying amounts from at least 1987 through 2001.¹⁹ This consistent history of
770 pension settlement gain activity refutes the position taken by Messrs. Dominak and
771 Barch that such gains are anomalous and are not likely to occur in the future. According
772 to SBC, pension settlement gains are anomalous and are not likely to occur in the future
773 because pension investment gains are expected to be significantly lower than what
774 SBC's pension plans earned in the 1990s.²⁰ Additionally, SBC believes that the
775 triggering events required to recognize deferred pension gains are not likely to occur in
776 the future.²¹

777
778 **Q. WHY, IN YOUR OPINION, IS SBC IS LIKELY TO EXPERIENCE**
779 **PENSION SETTLEMENT GAINS IN THE FUTURE, DESPITE MR.**
780 **DOMINAK'S POSITION TO THE CONTRARY?**

781 A. In addition to SBC's consistent history of recognizing pension settlement gain credits,
782 the underlying determinants for recognizing such gains are likely to return in the future.
783 One of the determinants that Mr. Dominak focuses on is the unrecognized gain or loss

¹⁹ See SBC's response to Staff Data Request TQS 1.02.

²⁰ See rebuttal testimony of Timothy Dominak, p. 12.

that accumulates based upon actual pension expenses and investment returns. The following information provided by SBC in response to discovery in AT&T Data Request MS-125 and in AT&T Data Request ATTSBC 904 (MS-103) from Michigan Case No. U-13531 discloses the unrecognized pension net (gains) or losses for the SBC Midwest from 1998, 1999, 2001, 2002 and 2003. Although it was requested in the Michigan data request, SBC omitted the same information for 2000.

[*** **BEGIN CONFIDENTIAL** ***]

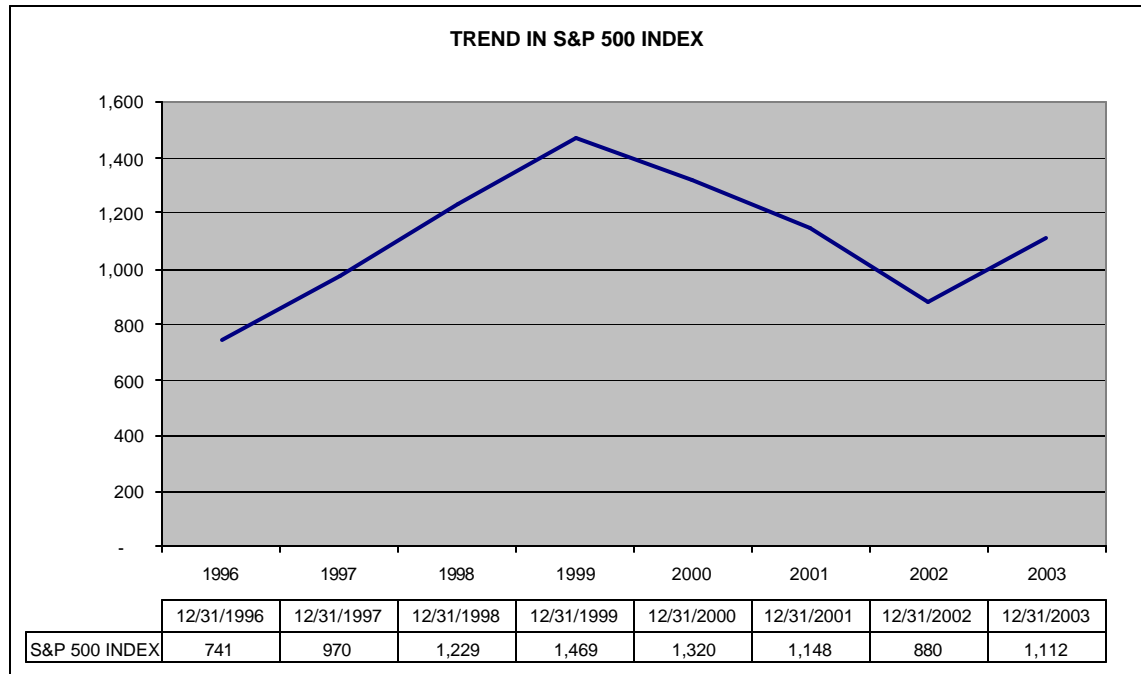
XX

[*** **END CONFIDENTIAL** ***]

This information does show that SBC Midwest's unrecognized pension gains turned to losses starting in 2002. However, the unrecognized losses have begun to decline. These unrecognized gains and losses have a direct correlation with investment returns from the stock market. The abnormally high market valuations of the late 1990s became abnormally low valuations in 2001 and 2002 due to the general marked decline in stock prices in the latter years. However, the stock market has stabilized and is

²¹ Id., p. 14.

beginning to show an upward trend again as reflected in the trend of the S&P 500 Index.



Q. WHAT IS THE SECOND DETERMINANT OF PENSION SETTLEMENT ACTIVITY THAT YOU ALLUDE TO ABOVE?

A. The second determinant is the triggering event that causes recognition of pension gains and losses. Lump-sum pension payments due to large numbers of SBC employees taking pension buy-outs have historically caused SBC to recognize large pension settlement gains. To the extent SBC continues to streamline its workforce through additional job eliminations and buyouts such as its reduction of 20,000 positions in

2002²² and the 3,400 additional jobs it cut through the 3rd Quarter of 2003²³, pension settlement activity is likely to continue throughout the study period for determining UNE rates. In fact, SBC said it expected force reductions to accelerate from 3rd Quarter 2003 year-to-date levels through 2004.²⁴ Consequently, if SBC's unrecognized pension loss situation continues to decline or reverse into a gain position, SBC is likely to experience pension settlement gains again.

**Q. WHY IS YOUR ORIGINAL RECOMMENDATION TO AVERAGE
PENSION SETTLEMENT GAINS BACK TO 1987 STILL REASONABLE?**

A. Our recommendation to include the average pension settlement gain from 1987 through 2001 is an attempt to smooth SBC's actual experience with such gains. It represents a longer period of actual experience than the most recent two years, upon which SBC wants the Commission to focus.

**Q. DOES MR. DOMINAK'S POSITION THAT CONCURRENT PENSION
SETTLEMENT LOSSES SHOULD ALSO BE FACTORED INTO ANY
AVERAGE CALCULATION HAVE MERIT?**

A. Yes, but only to the extent Mr. Dominak can adequately explain why settlement losses would occur in the same year that SBC shows a net pension settlement gain and if such

²² See SBC Communications, Inc. 2002 Annual Report, p. 2.

²³ See SBC Investor Briefing for 3rd Quarter 2003, p. 3.

835 losses are recorded in Account 6728 (General & Administrative), as the pension
836 settlement gains are. When SBC provided its pension settlement gain information during
837 the direct phase of this case, it gave no indication that it reflected gross pension
838 settlement activity instead of net pension settlement activity. Only in Mr. Dominak's
839 rebuttal testimony did SBC mention the existence of offsetting curtailment losses.
840 Consequently, we issued AT&T Data Request MS-124 to ascertain why SBC's
841 previous response to Staff Data Requests TQS 1.01 and TQS 1.02 did not include
842 such losses. Mr. Dominak's response to this data request indicated that the pension
843 settlement gain amounts for 1999 and 2000 in Staff Data Requests TQS 1.01 and 1.02
844 did reflect pension settlement gains net of curtailment losses. Mr. Dominak then
845 acknowledged that these losses were double counted in Schedules TD-R1 and TD-R2
846 to his rebuttal testimony. Consequently, Mr. Dominak submitted revised Schedules
847 TD-R1 and TD-R2 with this data response to correct the error. If the remaining
848 information provided by Mr. Dominak in revised Schedules TD-R1 and TD-R2 is
849 accurate, then it would be appropriate to average the net pension settlement activity.
850 Doing so would result in a reduced credit to Account 6728, but it would not eliminate it.

²⁴ *Id.*, p. 3.

853 **IIC. Issues Affecting Shared Costs**

854 ***IIC (i). Defining Wholesale Shared Costs***
855

856 **Q. ON PAGES 32-34 OF HIS REBUTTAL TESTIMONY, MR. BARCH**
857 **DEFENDS HIS PROPOSAL TO USE THE ENTIRETY OF SBC'S**
858 **WHOLESALE MARKETING COSTS IN THE SHARED COST**
859 **NUMERATOR TO DEVELOP SBC'S SHARED COST FACTOR? DO YOU**
860 **AGREE WITH HIS JUSTIFICATON?**

861 **A.** No. At the heart of SBC's decision to use the entirety of its wholesale marketing costs
862 to develop the marketing cost portion of its shared cost factor is the fact that SBC made
863 a conscious business decision not to develop a method for tracking those marketing
864 costs – and only those marketing costs – that are attributable to the UNEs it provides.
865 Mr. Barch claims that there is no practical business reason for SBC to do so. This
866 statement epitomizes SBC's true intent: to disregard UNE and resale services sold to
867 competitors as a significant component of SBC's suite of products because all of SBC's
868 efforts are designed to minimize the use of UNE and resale services. If SBC believed
869 that UNE and resale services were worth tracking as a separate product line, it would
870 not hesitate to develop the systems necessary to track the revenue, expenses and
871 profitability associated with the provision of such services.
872

873 Mr. Barch also attempts to justify his position by explaining how services sold to
874 CLECs proportionately account for more of SBC's wholesale marketing costs than its
875 more mature services, such as switched and special access. Mr. Barch concludes his
876 discussion by speculating that SBC's shared cost methodology probably understates the
877 marketing expense attributable to CLEC services. This may or may not be true, but the
878 essence of Mr. Barch's testimony is that the Commission should trust his judgment and
879 experience in lieu of making an informed decision based on objective, quantifiable and
880 verified information. By not disclosing what costs (if any) SBC actually incurs to
881 provide marketing support for UNE services, it deprives the CLECs and the
882 Commission of the opportunity to adequately examine and critique SBC's costs to
883 determine whether they are appropriate to include in SBC's shared cost factor. Just as
884 this Commission has previously disallowed certain expenditures in SBC's common cost
885 study because SBC has failed to prove that they are appropriate and/or has failed to
886 quantify them,²⁵ so should SBC's marketing costs be rejected. Without verifiable cost
887 support to identify appropriate UNE-marketing costs, one viable alternative – and the
888 one we recommend – is to estimate the amount of marketing costs attributable to
889 UNEs.

²⁵ See *Second Interim Order*, pp. 50-51.

891 **Q. ON PAGES 34-36 OF HIS REBUTTAL TESTIMONY, MR. BARCH**
892 **DISMISSES YOUR USE OF UNE REVENUE AS AN APPROPRIATE COST**
893 **ALLOCATOR. PLEASE RESPOND.**

894 A. Absent the cost detail by wholesale product line that SBC has chosen to not produce,
895 we used revenue as a cost allocator because a firm's decision to expend money on
896 marketing functions is usually based on the amount of revenue the firm expects to
897 generate from those activities. Occasionally, the relationship is indirect, such as when a
898 company sponsors a golf tournament or a retreat for its customers in the hope of
899 generating goodwill to retain those customers. Other times the relationship is direct,
900 such as where product management expenses are incurred in direct support of the
901 company's product line. Instead of disallowing all wholesale marketing costs in
902 calculating a shared cost factor, our recommended approach provides the Commission
903 a viable alternative by which to identify UNE-related marketing costs in the absence of
904 the verifiable cost data SBC has refused to provide.

905
906 **Q. DID MR. BARCH MISCHARACTERIZE A RECENT RULING BY THE**
907 **INDIANA UTILITY REGULATORY COMMISSION IN A COMPARABLE**
908 **TELRIC PROCEEDING?**

909 A. Yes, he did. On page 35 of his rebuttal testimony, Mr. Barch cites the Indiana
910 Commission's ruling on the use of UNE revenue rather than direct costs in the shared
911 cost denominator as support for his position not to use revenue as a cost allocator.

Contrary to Mr. Barch's testimony, the Indiana Commission was silent on our proposal to allocate wholesale marketing costs to UNE products via the ratio of UNE revenue to wholesale revenue. Instead, the Indiana Commission's findings refer to a proposal we made in Indiana that we did not make in our direct testimony in this proceeding. In Indiana Cause No. 42393, we recommended replacing wholesale direct costs in the shared cost denominator with UNE revenue because we used UNE revenue to allocate both SBC's wholesale marketing costs and its wholesale uncollectible costs. The use of UNE revenue in the denominator ensured consistency with our recommended adjustments to the shared cost numerator in Indiana.

Q. WHY DID YOU NOT RECOMMEND USING UNE REVENUE AS THE SHARED COST DENOMINATOR IN YOUR DIRECT TESTIMONY IN THIS PROCEEDING?

A. We did not substitute SBC's wholesale direct costs with UNE revenue in our direct testimony because we did not have sufficient and accurate information to do so at the time. In Indiana Cause No. 42393, SBC Indiana provided detailed information on revenue by wholesale product in response to discovery that enabled us to make the necessary calculation. The same data request was made in this proceeding (Joint CLEC Data Request 6-8), but SBC had not responded to this request before this case was abated. Consequently, we made no change to SBC's shared cost denominator

other than to flow through the adjustments we made to the common cost factor calculation.

Q. DO YOU RECOMMEND THAT THIS SAME ADJUSTMENT BE MADE IN THIS PROCEEDING?

A. Yes, we do for consistency with our other recommended adjustment to SBC's shared costs. The information required to make this adjustment is now available since SBC has responded to Joint CLEC Data Request 6-8. This recommendation favors SBC because it increases the shared cost factor. This increase occurs because UNE revenue is less than SBC's wholesale direct costs by almost 50%. A smaller shared cost denominator results in a larger shared cost factor.

Q. WHAT IMPORTANT ISSUE DID MR. BARCH OMIT IN HIS CITATION TO THE INDIANA COMMISSION'S ORDER IN CAUSE NO. 42393?

A. In the same paragraph that Mr. Barch cites from the IURC's order in Cause No. 42393, the Indiana Commission stated the following:

However, we also find that SBC should put in place accounting practices that will allow it to allocate its wholesale costs among different types of wholesale products (i.e. UNE vs. non-UNE).²⁶

²⁶ See *In the Matter of the Commission Investigation and Generic Proceeding of Rates and Unbundled Network Elements and Collocation for Indiana Bell Telephone Company, Incorporated d/b/a SBC Indiana Pursuant to the Telecommunications Act of 1996 and Related Indiana Statutes*, IURC Cause No. 42393, order approved January 5, 2004, p. 141.

952 Clearly, the IURC shared our concerns over the lack of detailed cost information
953 specific to SBC's UNE services. The ICC should require SBC to produce such
954 information in future TELRIC proceedings and to adopt our recommendations as an
955 alternative solution in the interim for purposes of this case.

956

957

IIC (ii). Wholesale Marketing

**Q. MR. BARCH CONTENDS THAT REDUCING THE WHOLESALE
MARKETING COSTS USED IN SBC'S SHARED COST FACTOR IS
INAPPROPRIATE. IS HE CORRECT?**

A. No. Mr. Barch claims on pages 38-40 of his rebuttal testimony that all of SBC's wholesale marketing costs (i.e., the marketing costs for all of its wholesale services, of which UNEs are only a small part) are appropriately included in SBC's shared cost factor. As we discussed in the previous section of our rebuttal testimony, IIC (i), entitled Defining Wholesale Shared Costs, SBC uses the entirety of its wholesale marketing costs because SBC has not developed the processes necessary to track UNE-specific costs. Consequently, the recommendations made by the Joint CLECs and Staff were attempts to determine the portion of SBC's wholesale costs that are attributable to UNEs. To the extent SBC's wholesale marketing costs include the costs SBC has incurred to support its current TELRIC case filings in Illinois and all other SBC Midwest states, such as the litigation support costs attributable to SBC witness Michael Silver cited by Mr. Barch,²⁷ these costs should be disallowed. These cases are filed at SBC's discretion solely to increase currently effective UNE rates. To the best of our knowledge, SBC is not required to file these updated UNE cost studies in any state proceeding.

²⁷ See rebuttal testimony of David Barch, p. 38.

977

978 *IIC (iii). Wholesale Uncollectibles*

979

980 **Q. WHAT IS THE FUNDAMENTAL DIFFERENCE BETWEEN MR.**
981 **DOMINAK’S REBUTTAL TESTIMONY ON “WHOLESALE**
982 **UNCOLLECTIBLE COST” AND THE RECOMMENDATIONS IN YOUR**
983 **DIRECT TESTIMONY?**

984 A. The fundamental difference in our two positions is that Mr. Dominak’s approach
985 focuses on SBC’s charges to account 5301, which estimates potential bad debt in
986 conformance with Generally Accepted Accounting Principles (“GAAP”) rather than
987 focusing – as we do -- on the *actual* (rather than estimated) economic loss SBC incurs
988 as a result of bad debt. SBC’s true loss is reflected by the amounts SBC actually writes
989 off in a given year or years. The accounting procedures described by Mr. Dominak on
990 pages 18-19 of his rebuttal testimony outline how SBC estimates what portion of its
991 accounts receivable will become uncollectible. SBC uses a snapshot in time (2001 bad
992 debt expense) to approximate what bad debt SBC may have to write-off in the future.
993 However, SBC’s “Wholesale Uncollectibles Cost” fails to provide an accurate picture
994 of the total revenue SBC actually foregoes as a result of its estimated uncollectibles.
995 Rather, SBC’s study includes only those amounts originally estimated as uncollectible,
996 and fails to account for the fact that no economic loss occurs unless and until SBC
997 writes off the receivable. In other words, SBC’s shared cost calculation fails to account

for the portion of the year-end Account 5301 balance that SBC ultimately collects or never writes off, thereby overstating SBC's shared costs.

Q. MR. DOMINAK CONTENDS THAT WHOLESALE CUSTOMERS ARE MORE PRONE TO GOING OUT OF BUSINESS THAN SBC'S RETAIL CUSTOMERS, WHILE OWING SBC LARGE AMOUNTS OF MONEY. DOES HE SUPPORT THIS ASSERTION?

A. Mr. Dominak fails to support the assertion made on pages 18-19 of his rebuttal testimony that wholesale customers are prone to going out of business or bankruptcy while owing SBC large amounts of money. In response to AT&T Data Request MS-126, Mr. Dominak provided a schedule for 2003 that shows that the average revenue from the top 10 wholesale customers is significantly larger than for the top 10 retail customers. While wholesale write-offs appear to represent a larger percentage of wholesale revenue than retail write-offs do as a percentage of retail revenue, he focuses on bankruptcy filings from a different year, 2001, to support his claim. The year 2001 was an exceptionally difficult year for CLECs. Mr. Dominak should have provided bankruptcy filing data for a greater number of years (i.e. 1998-2003) to adequately demonstrate that wholesale customers present a higher financial risk on a year over year basis. Mr. Dominak cannot reach his broad based conclusion by focusing on a mere snapshot in time – particularly one that was a particularly bad year for CLEC bankruptcies and defaults.

1019

1020 **Q. ON PAGES 22-25 OF HIS REBUTTAL TESTIMONY, MR. DOMINAK**
1021 **CRITICIZES YOUR USE OF UNCOLLECTIBLE EXPENSE DATA FROM**
1022 **1998-2000 AS LESS MEANINGFUL THAN DATA FROM 2001 AND 2002.**
1023 **WHAT IS YOUR RESPONSE?**

1024 A. Mr. Dominak chooses to focus on SBC's bad debt expense for the years 2001 and
1025 2002 as the most relevant indicator of SBC's current trends (contrary to the above
1026 discussion regarding bankruptcies, where he chooses to focus on 2003). In doing so,
1027 Mr. Dominak is also guilty of excluding even more recent data that indicates that SBC's
1028 bad debt expense trends are *reversing*. Additionally, SBC's use of bad debt expense
1029 derived from its application of the allowance method as a measure of its expected losses
1030 does not reflect actions that SBC has taken to mitigate those expected losses.

1031

1032 **Q. DOES SBC ILLINOIS HAVE MORE RECENT FINANCIAL**
1033 **INFORMATION THAT SHOWS ITS BAD DEBT EXPENSE TREND IS**
1034 **REVERSING?**

1035 A. Yes, it does. In response to AT&T Data Request MS-128, SBC provided its
1036 wholesale write-offs and bad debt expense for 2003. While write-offs were virtually
1037 the same as those recorded in 2002, SBC Illinois's bad debt expense from its use of the
1038 allowance method declined significantly from 2001 and 2002 to 2003.

1039

1039 [*** BEGIN CONFIDENTIAL ***]

1040

1041 [*** END CONFIDENTIAL ***]

1042

1043 **Q. WHAT OTHER INFORMATION DO YOU HAVE THAT CORROBORATES**
1044 **YOUR CLAIM THAT SBC'S BAD DEBT EXPENSE TREND IS**
1045 **REVERSING AND THAT SBC EMPLOYS OTHER METHODS TO**
1046 **MITIGATE ITS FINANCIAL LOSSES?**

1047 **A.** We examined information SBC filed with the SEC and found that SBC's bad debt
1048 trends for the whole of SBC (and not just SBC Illinois) are reversing. We also found
1049 that SBC has found ways to mitigate most of the financial loss it expects to incur from a
1050 large portion of its wholesale bad debt expense attributable to the WorldCom
1051 bankruptcy. Note the following excerpt from SBC's Form 10-K for 2002:

1052 **Other Business Matters (dollars in millions)**

1053

1054 **WorldCom Bankruptcy** On July 21, 2002, WorldCom and
1055 more than 170 related entities filed petitions for reorganization
1056 under Chapter 11 of the United States Bankruptcy Code. Our
1057 receivables from WorldCom as of the bankruptcy filing were
1058 approximately \$320. At December 31, 2002, we had reserves of
1059 approximately \$165 related to that filing. *In addition to the*
1060 *reserves, we are withholding payments on amounts we owed*

1061 ***WorldCom as of the filing date that equal or exceed the***
1062 ***remaining \$155. These withholdings relate primarily to***
1063 ***amounts collected from WorldCom's long-distance***
1064 ***customers in our role as billing agent and other general***
1065 ***payables. The bankruptcy court has recognized that some***
1066 ***providers, including our subsidiaries, have certain rights to***
1067 ***offset such pre-bankruptcy amounts they owe WorldCom***
1068 ***against unpaid pre-bankruptcy charges WorldCom owes***
1069 ***these providers.***

1070 The court has also directed WorldCom to negotiate post-petition
1071 offset arrangements with these providers. We estimate our post-
1072 petition billing to WorldCom to be approximately \$160 per
1073 month. ***To date, WorldCom has paid its post-petition***
1074 ***obligations to us on a timely basis.***²⁸ (emphasis added)
1075

1076 According to SBC, it has withheld long distance payments owed to WorldCom (as its
1077 billing agent) to offset almost half of the receivables owed to SBC from WorldCom as
1078 of the date of WorldCom's bankruptcy filing. SBC has also acknowledged that
1079 WorldCom has been paying its post-petition obligations on a timely basis.

1080
1081 To see whether SBC's experience with WorldCom remained stable or had improved,
1082 we reviewed SBC's 3rd Quarter 2003 Form 10-Q and noted the following (dollars in
1083 millions):

1084 ...At September 30, 2003, we had approximately \$320 in
1085 receivables and reserves of which approximately \$112 related to
1086 the WorldCom bankruptcy filing.

1087
1088 In addition to the reserves, we are withholding payments on
1089 amounts we owed WorldCom as of its bankruptcy filing date that

²⁸ See SBC Communications Inc. Form 10-K, For the Fiscal Year Ended December 31, 2002, released March 14, 2003, Management's Discussion and Analysis of Financial Condition and Results of Operations.

1090 equal or exceed our remaining net receivable. These withholdings
1091 relate primarily to amounts collected from WorldCom's long-
1092 distance customers in our role as billing agent and other general
1093 payables. We estimate our post-petition billing to WorldCom to
1094 be approximately \$160 per month. To date, WorldCom generally
1095 has paid its post-petition obligations to us on a timely basis.²⁹
1096

1097 Not only has WorldCom continued to pay its obligations in a timely manner, but SBC
1098 continues to withhold long distance payments owed to WorldCom, and the reserve
1099 related to the WorldCom bankruptcy has declined from \$165 million at December 31,
1100 2002 to \$112 million at September 30, 2003. Additionally, overall industry trends
1101 appear to be improving for SBC, as noted below (dollars in millions):

1102 Our provision for uncollectible accounts decreased approximately
1103 \$135 in the third quarter and \$383 for the first nine months, as we
1104 continued to experience fewer losses from our retail customers
1105 and *a decrease in bankruptcy filings by our wholesale*
1106 *customers.*³⁰
1107

1108 While the above citation is for SBC's Wireline business segment (SBC's largest), SBC
1109 does not produce a balance sheet by segment that is necessary to ascertain the
1110 percentage change in the Wireline segment's bad debt reserve. However, the SBC
1111 Communications Inc. Consolidated Balance Sheets as of September 30, 2003 and
1112 December 31, 2002 do provide bad debt reserve amounts. As of September 30, the

²⁹ See SBC Communications Inc., Form 10Q, 3rd Quarter 2003; *Other Business Matters*, first and second paragraphs.

³⁰ SBC Communications, Inc., Form 10Q, 3rd Quarter 2003; *Wireline Segment Results*, Selling, General and Administrative Expenses, third paragraph.

1113 reserve in 2003 has declined by 26% from year end 2002.³¹ In November 2003, SBC
1114 noted that its bad debt was down 41% from the prior year.³² Clearly, the primary
1115 justification behind SBC's reliance on wholesale bad debt expense to support its cost
1116 studies in this case, reserves for CLEC bankruptcies, is no longer sustainable. Instead,
1117 the ICC should require SBC to use an average of its actual write-offs for 1998-2003 in
1118 its shared cost calculation

1119
1120 **Q. WAS YOUR ORIGINAL RECOMMENDED ADJUSTMENT BASED UPON**
1121 **AVERAGE WRITE-OFFS?**

1122 A. It was in part. However, the primary focus of our original adjustment was on a linear
1123 trend of SBC's bad debt expense adjusted for projected recoveries. To rectify any
1124 inaccuracies that may occur as a result of estimating the portion of SBC's bad debt
1125 expense that is recoverable, we recommend modifying our original recommendation to
1126 focus instead on using an average of the write-offs that SBC has actually experienced.
1127 This represents the real economic loss that SBC has incurred. The following analysis
1128 calculates the average write-offs SBC has recorded from 1998 – 2003 and reflects a
1129 revision of the amounts originally calculated in Attachment MS/WF-6 to our direct
1130 testimony. It increases the wholesale uncollectible cost amount from the [*** XXXX

³¹ See SBC's 2002 10K, Consolidated Balance Sheets, Allowances for Uncollectibles of \$1,056,000,000 versus \$1,457,000,000 as of September 30, 2003 and December 31, 2002, respectively.

³² See Final Transcript of SBC Communications Analyst Meeting, November 13, 2003, p. 8. The transcript is produced by CCBNStreetEvents and included as Attachment MS/WF-20.

***] we recommended in Adjustment No. 7 in Attachment MS/WF-5 to our direct
testimony to [*** XXXXXX ***]. However, it is still significantly less than SBC's
proposal to used 2001 bad debt expense of [*** XXXXXXX ***].

[*** **BEGIN CONFIDENTIAL** ***]

[*** **END CONFIDENTIAL** ***]

**Q. WHY IS IT APPROPRIATE TO AVERAGE THE WRITE-OFFS IN
ACCOUNT 1181 ON A SIX-YEAR BASIS INSTEAD OF USING ONLY THE
AMOUNTS FOR THE 2001 TEST YEAR?**

A. It is appropriate to average the write-offs SBC has experienced over the last six years
because write-offs, by their very nature, fluctuate with economic trends in the
telecommunications industry as well as general economic trends. Using an average will
smooth out unusual fluctuations that may have occurred due to the rapid economic
growth in the late 1990s and the severe economic downturn during the period 2000 –
2002.

1151 **Q. ARE THERE ANY OTHER ADJUSTMENTS THAT SHOULD BE MADE**
1152 **TO YOUR ORIGINAL RECOMMENDATIONS ON WHOLESALE**
1153 **UNCOLLECTIBLE COSTS?**

1154 A. Yes. Adjustment No. 8 in Attachment MS/WF-5 to our direct testimony further
1155 reduced our recommended wholesale uncollectible cost by removing costs attributable
1156 to SBC's non-regulated operations. Because our adjusted uncollectible cost was
1157 already based on regulated-only data, no adjustment was necessary to remove non-
1158 regulated cost from this amount. Our revised uncollectible cost based upon the average
1159 write-offs experienced by SBC – discussed above -- is properly stated and can be
1160 used to replace our original recommended amount without any further adjustment.

1162 **III. ANNUAL COST FACTORS AND OTHER COST FACTORS**

1164 **IIIA. Issues Affecting Annual Cost Factors**

1165 ***IIIA (i). Network Utilization Adjustment Factor***
1166

1167 **Q. ON PAGES 40-43 OF HIS REBUTTAL TESTIMONY, MR. BARCH**
1168 **ATTEMPTS TO JUSTIFY SBC'S PROPOSED NETWORK UTILIZATION**
1169 **ADJUSTMENT FACTOR METHODOLOGY. IS HIS RATIONALE**
1170 **ACCURATE?**

1171 A. No, it is not. First of all, Mr. Barch's justification relies upon an analysis he should have
1172 submitted with his direct testimony to support his very limited discussion of SBC's
1173 proposed network utilization factor adjustment methodology. Secondly, Mr. Barch
1174 attempts to focus the Commission's attention on the constant per-unit operating costs
1175 that result from applying SBC's network utilization factor methodology.

1176
1177 **Q. PLEASE ADDRESS MR. BARCH'S ASSERTION THAT THE NETWORK**
1178 **UTILIZATION ALGORITHM INCREASES THE MAINTENANCE AND**
1179 **OTHER EXPENSE FACTORS BUT NOT THE PER UNIT MAINTENANCE**
1180 **COST.**

1181 A. There are two primary – and fatal -- flaws in Mr. Barch's theory. First, SBC has
1182 chosen to use an expense-to-investment ratio methodology (ACFs) to estimate its
1183 forward-looking expenses. The factor methodology assumes there is a relationship
1184 between expense and investment. This relationship assumes that the expense is a
1185 dependent variable of the investment; that is, as investment changes, so does expense.
1186 SBC's network utilization factor *breaks* this relationship, and allows SBC to recover
1187 the same level of per unit maintenance and other expenses, regardless of the amount of
1188 investment.

1189
1190 Second, Mr. Barch's theory that per unit maintenance costs should remain the same is
1191 predicated on the assumption that SBC's forward-looking network will require the

1192 same number of facilities that exist today. However, a forward-looking network is
1193 constructed using a carrier's existing footprint and the most efficient, forward-looking,
1194 currently available technology. If a team of SBC network engineers were told to
1195 construct a network with an effective utilization rate of 80%, the network they would
1196 construct would not have nearly as many facilities in place as SBC does today, with fill
1197 factors allegedly as low as [*** XX% ***]. For example, assuming hypothetically that
1198 SBC has an existing 600-pair cable that produces its current maintenance expense, an
1199 efficient, forward-looking network would likely only require a 300-pair network
1200 because of the higher fill factor. That is, because more of the facilities are filled with use,
1201 fewer of them are required. With half as many facilities, SBC should incur less
1202 maintenance expense.

1203
1204 **Q. SHOULD THE COMMISSION ALLOW SBC TO INCLUDE ITS**
1205 **UTILIZATION/MAINTENANCE ALGORITHM IN ITS ACF MODEL?**

1206 A. No, for several reasons, not the least of which is that SBC has simply failed to
1207 demonstrate its validity. SBC has not discussed, much less demonstrated, that its
1208 maintenance expenses increase on a linear basis as its network utilization levels increase.
1209 In sum, SBC's entire algorithm is theoretically and economically unsound, and must be
1210 rejected.

Incremental increases in utilization are not likely to cause incremental increases in maintenance costs (i.e., a linear relationship) until the level of utilization reaches a very high level. By adopting target fill factors, the Commission has already recognized that a level of utilization exists beyond which maintenance costs will increase at a rate higher than increased investment for new plant. That level of utilization is the level represented by the currently effective target fill factors that were adopted by this Commission, and which remain valid and forward-looking today. The use of target fill factors ensures that UNE rates are not based on fill factors higher than the level at which this economic crossover point is reached and at which increased maintenance costs are incurred. Thus, it is unreasonable to assume that a linear relationship exists between utilization levels and maintenance expenses at the extremely low (and non-TELRIC-compliant) fill factors SBC uses in its cost studies. SBC's algorithm must therefore be rejected as unsupportable, unreasonable and improper.

IIIA (ii). Service Order Activity Adjustment

Q. ON PAGES 47-48 OF HIS REBUTTAL TESTIMONY, MR. BARCH CLAIMS THAT AN ILLINOIS-SPECIFIC STUDY ON SERVICE ORDER ACTIVITY COSTS VALIDATES THE STUDY SBC USED BASED ON 1998 DATA FROM THE SOUTHWESTERN BELL TELEPHONE REGION. IS IT REASONABLE TO RELY UPON THIS ILLINOIS STUDY?

1233 A. No. Mr. Barch produced a service order activity study using 2001 SBC Illinois
1234 accounting data in response to Joint CLEC Data Request 3-4. This study purportedly
1235 calculates virtually the same service order activity adjustment Mr. Barch originally
1236 proposed using 1998 data from the Southwestern Bell region. However, this updated
1237 cost study provides absolutely no support for the service order activity expenses used in
1238 the analysis. Joint CLEC Data Request 3-4 asked for all analyses used by SBC in its
1239 calculation, yet SBC failed to provide any source data or even a description of how
1240 these service order costs were identified from SBC's general ledger. Instead, SBC
1241 only generically notes that such information was provided by the SBC Finance
1242 Operations Group. SBC's unexplained and unsubstantiated "cost study" fails to
1243 provide sufficient information to allow outside parties to corroborate the amount of
1244 service order activity expense contained in its study. Consequently, the service order
1245 activity costs that SBC removes from its ACF calculations are likely significantly
1246 understated. Therefore, the ICC should rely upon the modified service order activity
1247 adjustment recommended in our direct testimony.

1248
1249 **IIIB. Issues Affecting Investment Factors**

1250 ***IIIB (i). Space Leased to Collocating and Other Non-Affiliated Entities***
1251

1252 **Q. ON PAGES 44-45, MR. BARCH ASSERTS THAT YOUR RECOMMENDED**
1253 **ADJUSTMENT TO REMOVE THE COST ASSOCIATED WITH SPACE**

LEASED TO COLLOCATING AND OTHER NON-AFFILIATED

CARRIERS IS NOT APPROPRIATE. WHAT IS YOUR RESPONSE?

A. Mr. Barch contends that no adjustment is necessary because CLEC occupation of collocation space is somehow fleeting given the fact that CLECs do not sign leases for collocation space or provide commitments or projections about their length of stay. We disagree with Mr. Barch's characterization of the collocation relationship because it implies that SBC experiences significant fluctuations in the amount of space it leases to CLECs on a year-to-year basis. SBC's own financial data indicates that SBC has experienced steady increases in revenue from collocation activity over the last few years. In fact, our observation is consistent with Mr. Dominak's statements that CLEC activity did not begin to take off until the 2000–2002 timeframe.³³ In fact, SBC's response to Joint CLEC Data Request 6-8 demonstrates that SBC's revenue from collocation services was fairly consistent from 1998 – 2001, and then increased significantly in 2002. While CLECs may not sign leases for their collocation space, they would have no incentive to leave this space unless forced to do so by financial distress. Therefore, our recommended adjustment to remove space leased to collocating carriers and other non-affiliated entities is entirely appropriate.

³³ See rebuttal testimony of Timothy Dominak, p. 22.

1272 **Q. MR. BARCH ALSO CRITICIZES THE 5% ADJUSTMENT FACTOR**
1273 **CONTAINED IN YOUR DIRECT TESTIMONY. DOES MR. BARCH**
1274 **MISCHARACTERIZE YOUR PROPOSAL?**

1275 A. Yes. Mr. Barch criticizes our proposal to use a factor of 5% to remove space leased
1276 by collocating carriers. What Mr. Barch failed to mention is that we considered the 5%
1277 factor to be a placeholder until SBC responded to AT&T Data Request MS-32. SBC
1278 eventually responded to this data request after our direct testimony was filed.
1279 Consequently we recommend replacing our 5% placeholder with a factor of [***
1280 XXX% ***] based on a summation of the percentage of building space and land
1281 identified by SBC in response to AT&T Data Request MS-32.

1282
1283 ***IIIB (ii). Power & Common Factor Adjustment for MDF Investment***
1284

1285 **Q. DID SBC REVISE ITS ACF STUDY TO REMOVE MAIN DISTRIBUTION**
1286 **FRAME INVESTMENT (“MDF”) FROM ITS POWER & COMMON COST**
1287 **FACTOR?**

1288 A. Yes. Mr. Barch briefly notes on page 76 of his rebuttal testimony that SBC removed
1289 MDF investment from its Power & Common cost factor based upon a recommendation
1290 made in our direct testimony. However, SBC’s adjustment is confusing at best and
1291 raises a number of questions. First, SBC included (in its rebuttal case) a newer vintage
1292 Power & Common factor cost study (using 2001 data) with its revised ACF study

(based on 2000 data). From this pool of 2001 data, SBC identified what it considers to be MDF investment. SBC then incorporates this 2001 MDF investment in the input section of its test year 2000 ACF model, and subtracts the annualized amount of this 2001 MDF investment from the overall Power & Common cost data from the year 2000. SBC fails to explain why it has commingled data from two different years. In response to AT&T Data Request MS-120, SBC states that its new Power & Common factor study replaces the one originally filed with its ACF study. However, our examination of the actual adjustment SBC made to the revised ACF model indicates that this is not the case. SBC's commingling of data from 2000 and 2001 is inappropriate and should be rejected.

IIIC. Issues Affecting Inflation and Productivity

IIIC (i). Using the CPI-W Index to Measure Labor Cost Changes

Q. MR. BARCH CLAIMS ON PAGE 49 OF HIS REBUTTAL TESTIMONY THAT THE CPI-W IS THE BEST MEASURE OF INFLATION BECAUSE THE MAJORITY OF SBC'S LOOP COSTS ARE LABOR RELATED. IS HE CORRECT?

A. No. Mr. Barch misconstrues the citation from the Bureau of Labor Standards ("BLS") website that he uses as support for his position. As noted on page 158 of our direct testimony, the BLS explicitly stated that the CPI measures inflation as experienced by

consumers in their day-to-day living expenses. This proceeding concerns the pricing of an intermediate service that is ultimately used to provide a retail service to consumers. The full citation that Mr. Barch referenced is as follows from page 159 of our direct testimony.

The "best" measure of inflation for a given application depends on the intended use of the data. The CPI is generally the best measure for adjusting payments to consumers when the intent is to allow consumers to purchase, at today's prices, a market basket of goods and services equivalent to one that they could purchase in an earlier period. It is also the best measure to use to translate retail sales and hourly or weekly earnings into real or inflation-free dollars. [emphasis added]

The entire focus of this paragraph is to discuss the best measure of payments to consumers to enable them to purchase goods and services. The hourly or weekly earnings that Mr. Barch refers to are the payments to consumers that allow consumers to buy goods and services. Therefore, the CPI should not be used to adjust SBC's costs of production.

IIIC (ii). The Need For An Explicit Productivity Factor

Q. DID THE COMMISSION EXPRESS AN OPINION ABOUT PRODUCTIVITY AND INFLATION ADJUSTMENTS IN ITS RECENT COMMENTS TO THE FCC?

1338 A. Yes. In commenting on the allocation of common and shared costs, in its TELRIC NPRM
1339 comments to the FCC, the Commission noted that it allowed recovery of these costs from
1340 both recurring and non-recurring rates. The Commission also suggested that non-recurring
1341 charges should be adjusted for growth in wages and salaries, as well as for the
1342 *productivity* that offsets some of this growth (emphasis added):

1343 Further, some adjustments should be considered for non-recurring costs
1344 and charges, as these costs relate to wages and salaries that tend to
1345 increase over time. These increasing costs could be somewhat offset by
1346 some type of efficiency or productivity factor so that the entire forward-
1347 looking increased labor costs do not have to be recovered from CLECs.³⁴
1348 (emphasis added)
1349

1350 **Q. ON PAGE 11 OF HIS REBUTTAL TESTIMONY MR. BARCH CLAIMS**
1351 **THAT PRODUCTIVITY IS INHERENT IN FORWARD-LOOKING COST**
1352 **STUDIES. IS HE CORRECT?**

1353 A. Not completely. Productivity is accounted for, in part, through the use of certain
1354 forward-looking assumptions in cost studies, such as technology substitution, the use of
1355 ACFs and current prices. However, Mr. Barch's position that no explicit productivity
1356 offset is required in a TELRIC study is wholly inconsistent with TELRIC studies we
1357 have reviewed across the country. TELRIC studies filed by Verizon (both the former
1358 Bell Atlantic and GTE), BellSouth and Qwest all contain explicit productivity offsets. In
1359 his rebuttal testimony, Mr. Barch gives only vague descriptions of how productivity is

³⁴ See Initial Comments of the ICC before the FCC, In the Matter of Review of the Commission's Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers, WC Docket No. 03-173, December 16, 2003, p. 27.

1360 supposedly reflected in SBC's TELRIC studies, harping on generic, non-specific
1361 phrases such as forward-looking resources, activities, inputs and values. While Mr.
1362 Barch's direct testimony, pages 50-53, also claims that SBC's forward-looking
1363 investment assumptions, its use of current cost to book cost ("CC/BC") ratios and its
1364 ACFs adequately account for productivity, neither his direct nor rebuttal testimony
1365 provide sufficient evidence that an additional productivity offset is not required in light of
1366 the inflation SBC incorporates into its cost studies. There is no reason that all other
1367 RBOCs should include a productivity offset, but that SBC is somehow exempt.

1368
1369 **Q. WHY DO MR. BARCH'S FORWARD-LOOKING INVESTMENT**
1370 **ASSUMPTIONS FAIL TO ADEQUATELY REFLECT PRODUCTIVITY**
1371 **GAINS?**

1372 A. Mr. Barch's examples of SBC's forward-looking investment assumptions do not
1373 sufficiently reflect the necessary productivity gains because SBC's technology
1374 substitution does not necessarily result in lower costs. In his direct testimony, pages 50-
1375 51, Mr. Barch gave one example where the substitution of a new technology -- fiber for
1376 copper cables -- would likely lead to lower overall maintenance costs. However, Mr.
1377 Barch's example does not consider the impact of the other likely technology substitution
1378 scenario in a forward-looking network: a plant mix consisting of less aerial cable and
1379 more buried cable. While, according to SBC's proposed ACFs, aerial cable has higher
1380 maintenance costs than does buried cable on a per dollar basis, the use of more buried

cable in the network results in a greater increase in operating expenses as compared to other types of cable and wire facilities because the investment cost of buried cable per loop is significantly higher than that of aerial cable. A lower ACF applied to a significantly higher amount of investment results in a greater amount of operating expenses.

Q. DOES SBC'S USE OF ANNUAL CHARGE FACTORS TO ESTIMATE FORWARD-LOOKING EXPENSES ADEQUATELY ACCOUNT FOR PRODUCTIVITY GAINS?

A. No. SBC's annual charge factors (ACF) represent the relationship of expenses incurred today to investment restated to current cost. The dollar expenses are estimated by applying these factors to TELRIC investments. Therefore, annual charge factors imply that expenses will change *proportionally* to the change in investments. If no change in investment occurs, expenses will stay at the same level. If investment is growing due to price increases for capital equipment, expenses calculated using the ACF would also increase.

Note that under SBC's approach, *capital cost inflation* translates into higher projected *expenses* even if no inflation occurs in operating expense inputs. This happens because SBC applies operating expense factors to investments adjusted for capital inflation. For

example, maintenance expenses in SBC's recurring cost models are calculated according to the following formula:

$$\text{Maintenance expense} = \text{Maintenance Factor} * \text{Operation Inflation Factor} \\ * \text{Capital Cost Inflation Factor} * \text{Investment}.$$

This formula demonstrates that SBC accounts for inflation twice. The following hypothetical example demonstrates this double-counting. Suppose it takes one hour annually to maintain a certain piece of equipment. Assume that the forward-looking investment associated with this piece of equipment is \$1,000 at current prices, and the current wage is \$40/hour. The current maintenance factor for this equipment is $\$40 / \$1,000 = 0.04$. Now suppose that capital cost inflation is expected to be 5%, and labor wage inflation is zero. Since the labor price does not change, maintenance expense will stay at its initial level \$40. However, SBC's formula predicts that maintenance expense would be $0.04 * 105\% * \$1,000 = \42 , which is \$2 more than the actual expense.

In other words, SBC incorrectly assumes that expense will increase not only due to inflation in expense inputs, but also due to inflation in capital inputs. Interestingly, SBC uses two distinct inflation measures for its expense calculation but fails to introduce a separate expense-specific productivity measure. SBC argues, instead, that productivity in expenses

is accounted for through application of ACFs to forward-looking investments – investments that are lower than the embedded investments.

It is true that applying the annual charge factors to lower forward-looking investments results in total expenses that are lower than the embedded expenses. However, this decrease reflects only the *anticipated one-time* productivity gains that are expected based on the ratio of today's expenses to investment. These gains are one-time because they occur as we move from the embedded technology to the forward-looking technology. The annual charge factors *fail to account for* the ongoing productivity improvements that continually occur in a competitive marketplace. In other words, annual charge factors do not reflect *unanticipated* productivity gains that often occur when a company such as SBC changes the way it runs its business in a significant way. If SBC implements aggressive cost savings initiatives through process improvements, significant job cuts and automation and provisions the same or a greater number of access lines at the same time, these productivity gains cannot be predicted by – and, therefore are not captured by -- the use of annual charge factors. Cost cutting initiatives of this magnitude are currently underway at SBC and should dramatically reduce SBC's operating expenses.

1440 **Q. WHAT INITIATIVES DID SBC ANNOUNCE AFTER THE FILING OF**
1441 **DIRECT TESTIMONY IN THIS CASE THAT ARE LIKELY TO**
1442 **SIGNIFICANTLY ALTER SBC'S EXPENSE-TO-INVESTMENT RATIOS?**

1443 A. SBC held a conference with Wall Street analysts on November 13, 2003 to discuss its
1444 financial and operational performance for the first three quarters of 2003 as compared
1445 to previous years. SBC also provided projections of performance through 2004. One
1446 of the SBC executives, John Atterbury III, Group President – Operations, gave a
1447 presentation entitled “*Service and Operations Initiatives*.”³⁵ This presentation
1448 highlighted SBC's service improvements, while at the same time highlighting SBC's goal
1449 of reducing service costs.

1450
1451 According to the transcript of the SBC analyst meeting, Mr. Atterbury focused his
1452 presentation on SBC's short-term cost reduction projects and its longer term projects
1453 designed to reinvent and rebuild SBC's processes, business functions and technology
1454 platforms.³⁶

1455
1456 **Q. ACCORDING TO MR. ATTERBURY, WHAT SHORT-TERM COST**
1457 **REDUCTION INITIATIVES HAS SBC IMPLEMENTED?**

³⁵ See copy of SBC's November 13, 2003 Analyst presentation slides, pp. 36-61, at its Investor Relations website: http://www.sbc.com/investor_relations/0,,1966,00.html.

³⁶ See Final Transcript of SBC Communications Analyst Meeting, November 13, 2003, pp. 7-10. The transcript is produced by CCBNStreetEvents and included as Attachment MS/WF-20.

1458 A. On page 8 of the transcript in Attachment MS/WF-20, Mr. Atterbury discussed how
1459 SBC has recently eliminated nearly \$1 billion in operations and support costs.
1460 Specifically, SBC reduced its Wireline division's workforce by 28,000 employees over
1461 the last two years by matching "force and load" and through productivity improvements.
1462 He stated that force reductions will accelerate from recent levels, and that bad debt is
1463 down 41%. Mr. Atterbury highlighted numerous other programs that illustrate -- in his
1464 words -- how "fanatical" SBC has been about reducing its short-term cost structure.
1465 These short-term initiatives are summarized in Attachment MS/WF-21, which includes
1466 pages from an excerpt of Mr. Atterbury's presentation tellingly entitled "A
1467 *Fundamental Transformation of SBC Operations.*"

1468
1469 **Q. DID YOU ASK SBC IF IT HAD ACCOUNTED FOR PRODUCTIVITY**
1470 **GAINS DUE TO WORKFORCE RESTRUCTURING?**

1471 A. Yes. In AT&T Data Request MS-123, we asked where SBC Illinois accounts for
1472 productivity gains attributable to fewer labor hours required to maintain its network.
1473 We also asked SBC to account for labor hour reductions resulting from the elimination
1474 of 27,000 full-time and contractor positions from 3rd Quarter 2001 through 3rd Quarter
1475 2003.³⁷ SBC responded as follows:

1476 Mr. Barch's rebuttal testimony neither states explicitly nor implies
1477 certain specific, observable location(s) "where SBC Illinois factors

³⁷ See SBC's 3rd Quarter 2003 Investor Briefing, p. 3 at SBC's Investor Relations website:
http://www.sbc.com/investor_relations/

1478 in productivity gains within its TELRIC studies from fewer labor
1479 hours required to maintain SBC Illinois' network." Indeed, this
1480 referenced section of his rebuttal testimony provides explanation
1481 to the contrary; namely, why a specific productivity "factor", or its
1482 equivalent, is wholly inaccurate methodology with respect to SBC
1483 Illinois' TELRIC studies. Additionally, to the extent that TELRIC
1484 investment (*i.e.*, forward-looking investment) is lower than
1485 embedded investment, then the operating expenses are also lower
1486 given that Annual Cost Factors are multiplied by TELRIC
1487 investment and *not* embedded investment.

1488 With respect to the admonition in the second part of this discovery
1489 request, SBC Illinois has not performed an analysis, or its
1490 equivalent, attempting to quantify or "account for" the upward or
1491 downward numerical impact, if any, of workforce reductions on
1492 the TELRIC or Shared and Common cost studies. What can be
1493 understood about Mr. Atterbury's statements is that they
1494 represent reductions to the current network and overhead. SBC
1495 Illinois' TELRIC studies and Shared and Common study model a
1496 forward-looking network, the costs of which are significantly
1497 lower than the current network.
1498
1499

1500 Mr. Barch claims that Mr. Atterbury's statements are not applicable to SBC's TELRIC
1501 studies because they reflect reductions to SBC's current network and overhead.

1502 However, Mr. Barch fails to note that many of SBC's cost study assumptions, such as
1503 its common overhead, are based on current costs. Clearly, SBC failed to account for
1504 productivity gains resulting from its workforce reductions when it prepared its studies
1505 using 2000 test year data. These cost cutting initiatives were not known at the time
1506 SBC prepared its cost studies for this proceeding. Therefore, these cost studies could
1507 not possibly reflect -- indeed, do not reflect -- the dramatic cost reductions expected
1508 over the next few years.

**Q. WHAT ARE THE LONGER TERM COST REDUCTION INITIATIVES
OUTLINED BY MR. ATTERBURY?**

A. On page 8 of the transcript in Attachment MS/WF-20, Mr. Atterbury prefaced his comments on longer term cost reduction initiatives by explaining SBC's need for a cost structure that yields far more operating efficiency. SBC's major long term initiatives are summarized below from SBC's presentation slides and are contained in Attachment MS/WF-21:

- Consolidation of call and network centers;
- Creation of one national customer service bureau rather than regional service bureaus;
- Consolidated nationwide technical support rather than regional;
- Automation of outside plant records; and
- More efficient technician routing using GPS technology to save 30 million road miles and 750,000 technician hours annually.

These projects represent only a handful of the hundreds of projects that SBC has underway.³⁸ Of the above projects, Mr. Atterbury stated that its network service operation consolidation project is its biggest single project.³⁹ Mr. Atterbury then noted that SBC will achieve continuous improvement throughout the company by using best-in-class metrics. The wireline group that achieves the best metric in a functional area of the company is then held as the standard that all other groups must meet. Mr. Atterbury

³⁸ See transcript in Exhibit MS/WF-20, p. 8.

³⁹ *Id.*, p. 8.

1531 expects SBC to achieve \$550 million in annual cost savings from this best-in-class
1532 approach.⁴⁰

1533
1534 Mr. Atterbury concluded his remarks by emphasizing that the longer term productivity
1535 improvements would collectively save SBC \$1.3 billion in annual capital and expense by
1536 2006.⁴¹ According to Mr. Atterbury, this estimate represents productivity savings only
1537 and not those additional savings that will result from matching workforce to load if load
1538 continues to drop.⁴² He affirmed SBC's commitment to cost control as a continuous
1539 process and not a one-shot deal.

1540
1541 **Q. WHY ARE THESE NUMEROUS COST SAVINGS INITIATIVES**
1542 **SIGNIFICANT?**

1543 A. SBC's ACFs are based on 2000 test year data; thus, the "forward-looking" network
1544 investment assumptions used in those studies date back to 2002 or earlier when the cost
1545 studies were prepared. SBC cost personnel have not incorporated (nor have they
1546 documented) any of these cost savings initiatives into their cost study assumptions. In
1547 fact, it is unlikely SBC's personnel were even aware of them at the time they prepared
1548 the studies. These initiatives represent significant changes in SBC's cost structure and
1549 will most certainly change the nature of SBC's expense-to-investment relationship that

⁴⁰ *Id.*, p. 10

⁴¹ *Id.*, p. 10.

1550 serves as the basis of its ACFs. Therefore, additional productivity improvements must
1551 be factored into SBC's cost models.

1552
1553 ***IIIC (iii). ICC-Adopted Productivity Factor vs. Joint CLEC Productivity***
1554 ***Factor***
1555

1556 **Q. IS MR. BARCH'S COMPARISON OF THE MAGNITUDE OF YOUR**
1557 **RECOMMENDED PRODUCTIVITY FACTOR TO THE ICC-ADOPTED**
1558 **PRODUCTIVITY FACTOR IN SBC'S ALTERNATIVE REGULATION**
1559 **PLAN ACCURATE?**

1560 **A.** No. While the two productivity factors are prepared on different bases, the
1561 productivity factor for SBC's Alternative Regulation Plan reflects productivity changes
1562 for one year. In the Alternative Regulation Plan, productivity was included in an X
1563 factor set at 4.3% by the ICC.⁴³ Our recommended productivity factor of 8.8%
1564 reflects the estimated change in productivity over a 3 ½-year period. If one were to
1565 compare the two factors over the same time period, the productivity savings from the
1566 X-factor would be significantly greater.

⁴² *Id.*, p. 10.

⁴³ See *Illinois Bell Telephone Company Application for review of alternative regulation plan. Illinois Bell Telephone Company Petition to Rebalance Illinois Bell Telephone Company's Carrier Access and Network Access Line Rates. Citizens Utility Board and The People of the State of Illinois vs. Illinois Bell Telephone Company. Verified Complaint for a Reduction in Illinois Bell Telephone Company's Rates and Other Relief.* Docket Nos. 98-0252/98-0335/00-0764 (Consol.), Order dated December 30, 2002, p. 99.

IV. FILL FACTORS

Q. WHAT ARE THE PRIMARY ISSUES COVERED IN THIS SECTION OF YOUR SURREBUTTAL TESTIMONY?

A. This section of our surrebuttal testimony addresses the rebuttal testimonies of SBC witnesses Messrs. William Palmer, Smallwood, and White and Staff witness Dr. Qin Liu. We address these witnesses' criticisms of our recommended fill factor assumptions and values included in our direct testimony. Our surrebuttal testimony makes two primary points: (1) we reiterate our position that fill factors based upon actual usage of SBC's network are not forward-looking and, therefore, are not TELRIC compliant and (2) we demonstrate for the Commission that even if "actual fill" factors were appropriate, the factors advocated by SBC Illinois do not accurately represent the level of fill actually available in the SBC network.

Q. ARE YOU SUGGESTING THAT EVEN IF THE COMMISSION WERE TO REJECT YOUR FILL FACTOR RECOMMENDATION, THE COMMISSION WOULD STILL NEED TO REJECT THE "ACTUAL FILL" FACTORS ADVOCATED BY SBC?

A. Yes. Our testimony includes detailed analyses that demonstrate why SBC's actual fill factor values are rife with deficiencies and cannot possibly reflect forward-looking utilization of its network. We reference recent comments filed by the ICC in the FCC's

TELRIC NPRM which indicate that this Commission has significant reservations about using actual fill factors to set UNE rates and, in our opinion, for good reason. We also point out a number of instances where Mr. William Palmer has completely mischaracterized the FCC's decisions and intentions on fill factor assumptions for TELRIC studies.

IVA. Target Fill Factors Adopted by ICC in Docket No. 96-0486/0569

Q. ON PAGE 5 OF MR. WILLIAM PALMER'S REBUTTAL TESTIMONY HE STATES THAT THE FCC HAS INDICATED THAT ACTUAL FILL WAS AN APPROPRIATE STANDARD WHEN SBC PROPOSED ITS TARGET FILL FACTORS IN DOCKET NOS. 96-0486/0569. IS THIS AN ACCURATE INTERPRETATION OF THE FCC'S GUIDANCE ON THIS ISSUE AT THAT TIME?

A. No, it is not. Mr. William Palmer makes a general statement as if it was fact and does not support his claim by referring to a particular FCC document. However, we believe Mr. William Palmer is referring to the FCC's discussion of fill in its *Local Competition First Report and Order*:

Per-unit costs shall be derived from total costs using reasonably accurate "fill factors" (estimates of the proportion of a facility that will be "filled" with network usage); that is, the per-unit costs associated with a particular element must be derived by dividing

the total cost associated with the element by a reasonable
projection of the actual total usage of the element.⁴⁴

As we noted in our direct testimony, Mr. William Palmer has misinterpreted this
paragraph of the FCC's *First Report and Order*. The FCC's use of the term "actual"
in paragraph 682 is specific to the demand that must be considered in developing per-
unit costs, not the actual level of fill or utilization. Developing a fill factor consistent with
the FCC's direction above would require a calculation of that "actual demand" (in units)
divided by the most efficient amount of network capacity required to support it. That is
what we've done with respect to our fill factor recommendation based upon sound
engineering and economic guidelines. We note for the Commission that our
recommended fill factors are identical to fill factors previously advocated by Mr. Palmer
himself when he ran the Ameritech Illinois cost study organization.

**Q. ON PAGES 6-7 OF HIS REBUTTAL TESTIMONY, MR. WILLIAM
PALMER CONTENDS THAT TARGET FILL FACTORS DO NOT
INCLUDE CAPACITY TO ACCOMMODATE "ULTIMATE DEMAND." IS
HE CORRECT?**

A. Yes, he is. We acknowledge that "target fill" factors such as those we have
recommended in our direct testimony do not include sufficient capacity to accommodate

⁴⁴ See *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98, *First Report and Order*, 11 FCC Rcd 15499, 15509, para. 682 (1996) (*Local Competition First Report and Order*)

ultimate demand. That is because to do so would be economically unsound. The use of ultimate demand has no place in a TELRIC cost study because it essentially requires current customers to pay for growth used by future customers. As we describe in more detail later, fill factors are intended to allow a carrier to recover costs associated with the capacity required to serve its customers. They are not intended to allow the carrier to recover the costs of all network capacity from one set of customers (i.e., current customers), while providing the carrier a continued opportunity to recover those same costs again from another set of customers (i.e., future customers). Yet, that is exactly what Mr. Palmer's, and SBC's, fill factor recommendation would allow SBC to do, i.e., recover the entirety of its network costs (for a network sized for ultimate demand) from today's customers while, at the same time, continuing to charge the bloated rates that result from this calculation from all future customers as well, even though the network will have already been paid for (including any "spare capacity") several times over. That is precisely why SBC's proposal must be rejected.

IVB. Fill Factor Consistency Between Wholesale and Retail Cost Studies

Q. ON PAGES 12-14 OF HIS REBUTTAL TESTIMONY, MR. WILLIAM PALMER ASSERTS THAT LRSIC AND TELRIC INPUT ASSUMPTIONS NEED NOT BE THE SAME. IS HE CORRECT?

1649 A. No. Mr. William Palmer chooses to focus on the differences between TELRIC and
1650 LRSIC pricing rules instead of the underlying issue. As other SBC witnesses have said
1651 in this proceeding, SBC is determining the forward-looking costs of a single network.⁴⁵
1652 The costs incurred by SBC to provision a given network element (whether ultimately to
1653 be unbundled or provided as a component of a retail service) is the same. Functionally,
1654 SBC does not engineer its network with different capacity assumptions for retail and
1655 wholesale customers. Mr. William Palmer forgets that SBC has almost complete
1656 flexibility in allocating the amount of contribution it will receive from its retail services.
1657 Just because it does not have similar flexibility in setting UNE rates does not mean the
1658 process for determining the direct costs of the network should be different. Allowing
1659 SBC to create this type of cost differential would allow SBC to price UNEs at or above
1660 the comparable retail service, rendering competition untenable.

1662 **IVC. Impact of Demand Projection and Growth Capacity on Cost**

1663 ***IVC (i). Demand Time Frame***
1664

1665 **Q. WHY IS THE TIME FRAME FOR PROJECTED DEMAND AN**
1666 **IMPORTANT DETERMINANT OF UNE COSTS?**

1667 A. UNE prices set by the Commission in this proceeding will reflect the rate the
1668 Commission deems sufficient for SBC Illinois to recover its TELRIC of providing UNEs

⁴⁵ For example, see the rebuttal testimony of David Barch, p. 7.

plus a reasonable amount of shared and common costs. SBC's cost determination is based in large part on its estimation of the capacity needed to serve its customers. To the extent SBC includes the cost of capacity needed to serve customers 10 to 20 years in the future rather than a shorter time frame such as two to five years, it results in current customers paying for capacity placed solely for the benefit of future customers.

Q. IN HIS REBUTTAL TESTIMONY MR. PALMER STATES THAT “A LONGER-TERM DEMAND” IS REQUIRED BY THE TELRIC METHODOLOGY RATHER THAN THE “CURRENT DEMAND” ON WHICH THE FCC HYBRID COST PROXY MODEL IS BASED.⁴⁶ IS HIS STATEMENT CORRECT?

A. No, his statement is incorrect. Mr. William Palmer appears to confuse the application of the adjective “long-term.” In the TELRIC methodology, this word applies to *cost* rather than to *output*. It is correct that the FCC's Hybrid Cost Proxy Model is used for Universal Service funding purposes, rather than UNE pricing. However, the FCC also confirmed the relevance and propriety of using current demand rather than ultimate demand in a recent arbitration proceeding. In the recent *Virginia Order*, the FCC adopted the same standard of *current* demand – demand that includes only short-term growth – when pricing UNE elements.⁴⁷

⁴⁶ See rebuttal testimony of William Palmer, submitted January 20, 2004, p. 20.

⁴⁷ See FCC *Memorandum Opinion and Order*. CC Dockets No. 00-218 and 00-251. Adopted August 28, 2003, paragraph 254 (*Virginia Order*);

1688 Just as the Commission found it inappropriate to include in
1689 universal service support the costs of building outside plant
1690 designed to meet uncertain ten- or twenty-year demand
1691 projections, it is inappropriate for AT&T/WorldCom to bear the
1692 cost today of building plant for uncertain ultimate demand.
1693

1694 **Q. MR. WILLIAM PALMER ALSO CONTENDS THAT “IN ITS TELRIC**
1695 **NPRM, THE FCC MAKES IT CLEAR THAT THE APPROACH TO FILL**
1696 **FACTORS IT MANDATED IN THE USF PROCEEDING IS NOT**
1697 **CONSISTENT WITH ITS TELRIC STANDARD” AND THAT “THE**
1698 **TELRIC NPRM MAKES IT CLEAR THAT TELRIC REQUIRES**
1699 **RECOGNITION OF SUCH CAPACITY” (I.E. BUILT TO SERVE FUTURE**
1700 **DEMAND).⁴⁸ ARE THESE STATEMENTS A CORRECT**
1701 **INTERPRETATION OF THE FCC’S DECISIONS?**

1702 **A.** Absolutely not. Either this statement is the result of a typographical error, or Mr.
1703 William Palmer is simply distorting the truth. As support for this statement, Mr. William
1704 Palmer provides a reference to paragraph 74 of the FCC’s TELRIC NPRM. Below
1705 we reproduce the complete text of this paragraph,⁴⁹ which clearly demonstrates that the
1706 paragraph upon which Mr. William Palmer relies *did not provide any affirmative*
1707 *statements* but, rather, posed a series of questions. These questions have no bearing

⁴⁸ See rebuttal testimony of William Palmer, submitted January 20, 2004, p. 21.

⁴⁹ See *Notice of Proposed Rulemaking, Review of the Commission’s Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local Exchange Carriers*, WC Docket No. 03-173, FCC 03-224 (rel. Sept. 15, 2003) ¶74. (“*TELRIC NPRM*”)

on the current manner in which the FCC's TELRIC rules must be interpreted (indeed, they may, *or may not*, have any bearing on any future requirements of the FCC either):

74. We seek comment on appropriate guidelines for states to follow in establishing fill factors. What factors do states currently consider in developing fill factors? How relevant are an incumbent LEC's existing fill factors in establishing forward-looking costs? Should they be dispositive given our tentative conclusion to more closely account for the real-world attributes of the routing and topography of an incumbent LEC's network? If an incumbent LEC's existing fill factors are not dispositive, what other evidence should a state commission consider? Would it be relevant if competitors routinely operated facilities at a higher or lower fill? Should state commissions consider "carrier of last resort" obligations in deciding on the appropriate fill factor? Would the fill factors of other incumbent LECs be relevant to demonstrate achievable efficiencies?

Rather than ponder the questions raised by the FCC relative to how its rules may change -- if at all -- in the future, we find the portions of the FCC's NPRM that describe the current state of its rules more informative. And, not surprisingly, those sections of the NPRM directly refute Mr. Palmer's interpretation:

The *Local Competition Order* provides no guidance to state commissions on this specific issue beyond the general requirement that the network should be sized to meet reasonably foreseeable demand. In the *USF Inputs Order*, the Commission established forward-looking fill factors based on current demand, which it defined to include excess capacity for short-term growth, rather than on ultimate demand, which it found to be too speculative.⁵⁰ (emphasis added)

⁵⁰ *Id.*, ¶73.

Note that the FCC talks about a *reasonably foreseeable* demand as a sizing criterion for a forward-looking network. At the same time the FCC quotes itself as saying that ultimate demand is simply too speculative. As the above language clearly demonstrates, demand that is “speculative” is inconsistent with and cannot equate to, be likened to or be compared with demand that is “reasonably foreseeable.” According to the FCC, “reasonably foreseeable” demand is not long term, “speculative” demand. Rather, it is the *short-term*, rather than long-term demand that is consistent with the FCC’s TELRIC rules as they stand today.

Q. WHAT HARM COULD RESULT IF TELRIC PRICES ARE SET BASED ON ULTIMATE DEMAND?

A. The TELRIC process is designed to mimic the price signals in a competitive market. In competitive markets, building capacity for future growth is a gamble – if growth materializes, the firm collects the gains, but if the forecasted growth fails to materialize, the firm could incur losses. This risk limits the planning horizon of a competitive firm. In other words, competitive markets have significant incentives to carefully forecast the demand, and might forego cost advantages of building capacity for growth because of the uncertainty of distant events. Unfortunately, SBC’s “actual” network was built when these same incentives did NOT apply to SBC Illinois. Instead, as a protected monopolist, SBC Illinois had incentives directly contrary to those of a competing carrier. As an incumbent utility service provider, SBC Illinois has for most of its existence been

1760 compensated financially for building its network with as much spare capacity as
1761 regulators would allow (because it earned a fixed return on every dollar it invested).
1762 Hence, it is not surprising that SBC would prefer to set forward looking rates based
1763 upon its backward looking network, because to do so provides it the same
1764 compensation it received as a monopolist. Fortunately, the FCC in its TELRIC rules
1765 has already rejected such a backward looking approach, and has likewise rejected the
1766 notion that fill factors based upon SBC's actual level of spare capacity is in any way
1767 consistent with its TELRIC rules.

1768
1769 **Q. WHY IS IT IMPORTANT THAT TELRIC-BASED COSTS PROVIDE**
1770 **INCENTIVES SIMILAR TO THE COMPETITIVE MARKET?**

1771 A. Note that, as used by SBC, the fill factors are a *mechanism for collecting costs of*
1772 *spare capacity from working UNE capacity*. If the forecasted growth occurs, SBC
1773 collects all the gains, but if the growth fails to materialize, the fill factors based on
1774 ultimate demand *shield* SBC from losses. This mechanism shifts the risks from SBC to
1775 CLECs, who pay for additional capacity that might never be built in a competitive
1776 market, while leaving the decisions related to those investments, and any potential
1777 rewards, solely with SBC. If the Commission were to base fill factors on a network
1778 design that is built for ultimate demand, SBC would have no incentives to carefully
1779 forecast growth. SBC would have the freedom of engaging in risky investment projects
1780 that a competitive industry would not (and should not) allow.

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Therefore, from a production perspective, setting rates based upon ultimate demand in the calculation of fill factors would shift the risks from SBC to CLECs and create excessive capacity compared to a competitive market. On the consumer side, additional capacity built for long-term growth would unfairly and uneconomically burden today's customers. In other words, it would result in an intergenerational cross-subsidy. Today's customers would be paying for capacity designed to serve tomorrow's customers. As we point out in Section IVF of this surrebuttal testimony, SBC has been conducting a massive overlay investment project as part of its broadband initiative. This project temporarily lowers fill factors of its feeder facilities because of the deployment of additional fiber facilities to support broadband services. By proposing to use its current transitional fill factors in UNE pricing, SBC is effectively asking current customers to subsidize the demand of its future customers; and perhaps more importantly, future demand for new technology, technology that SBC may no longer be required to share with CLECs on an unbundled basis (i.e., packet technology). The Commission expressed a similar concern in its recent comments to the FCC:

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The ICC is concerned that carriers will justify increased investment in state of the art technology in the modeled network for the provisioning of data services with ever increasing data

speeds, where there is no evidence to suggest that the CLECs will
have access to such services.⁵¹

**Q. WHY WOULD AN ILEC WANT TO ENGAGE IN SUCH AN INTER-
GENERATIONAL CROSS-SUBSIDY?**

A. There is less competition today than there may (hopefully) be at a later date. By forcing
current customers to bear the costs for expansion or network upgrade designed to
serve future customers, SBC can both earn higher current margins today and gain an
unfair advantage over competitors in the future by offering lower prices. In addition,
higher unbundled loop rates today will postpone the entry of potential competitors who
intend to buy the loop or cause existing competitors to either exit the market completely
or withdraw a subset of its service packages.

IVD. Impact of Network Design on Fill Factors

IVD (i) Next Generation DLC Technology

**Q. MR. WHITE DISPUTES YOUR STATEMENT THAT OLDER DLC
SYSTEMS DRIVE SBC'S FILLS BELOW THE LEVELS THAT WOULD BE
ACHIEVED WITH THE NEXT GENERATION DLCS (NGDLC). IN
SUPPORT, MR. WHITE PROVIDES SOME ACTUAL STATISTICS THAT**

⁵¹ See *Initial Comments of the ICC before the FCC, In the Matter of Review of the Commission's Rules Regarding the Pricing of Unbundled Network Elements and the Resale of Service by Incumbent Local*

COMPARE CURRENT FILLS FOR THE NGDLC AND NON-NGDLC.⁵²

WHAT IS YOUR CRITIQUE OF THESE DATA?

A. These data are irrelevant because actual utilization that we might observe today is not a good indicator of what these fills would be tomorrow when the NGDLC systems are fully deployed. In fact, we would expect a temporary decrease in actual utilization levels for new deployments. Further, Mr. White's method of calculating the quoted fill percent of [*** XXX % ***] for non-NGDLC systems is rather questionable. First, Mr. White departs from the fill calculation methodology that SBC uses in its actual fill study: Mr. White adds a new component to the numerator by counting non-working assigned pairs.⁵³ This addition not only increases the fills, it tends to increase fills of older, non-NGDLC systems *more* because these systems are more likely to have assigned pairs in locations where customers moved out. Second, for his denominator Mr. White uses equipped pairs, thus calculating the fill of DLC plug-ins, and not DLC systems. And finally, the pair counts that Mr. White supplied in support of his percentage⁵⁴ are simply inconsistent with other DLC capacity counts that SBC provided in this proceeding. For example, in a response to another AT&T data request,⁵⁵ SBC provided a wire center level count of UDLC and IDLC derived pairs as support for its

Exchange Carriers, WC Docket No. 03-173, December 16, 2003, p. 35.

⁵² Rebuttal Testimony of Randall White, submitted January 20, 2004, p. 10.

⁵³ Mr. White explained his methodology in SBC's response to AT&T MS-143.

⁵⁴ Attachment to SBC's Response to AT&T MS-143.

⁵⁵ Attachment to SBC's response to AT&T BFP-385.

LoopCAT input “percent of non-integrated DLC.” The data in this file paint an
opposite picture: utilization of integrated DLC (NGDLC) is actually higher at [*** XX
% ***] versus [*** XX% ***] of non-NGDLC (UDLC) systems.⁵⁶

IVE. Appropriate Measure of Forward-Looking Network Utilization

IVE (i) ICC’S Comments to the FCC

**Q. DO THE COMMISSION’S RECENT COMMENTS TO THE FCC
INDICATE THAT IT IS APPROPRIATE TO ASSUME THAT SBC’S
EXISTING NETWORK IS EFFICIENT, SUCH THAT ANY LEVEL OF
SPARE CAPACITY THAT CURRENTLY EXISTS SHOULD BE
CONSIDERED APPROPRIATE IN A FORWARD-LOOKING
ENVIRONMENT?**

A. No, they do not. To the contrary, the Commission suggested to the FCC that we
should not assume that incumbents’ actual networks and engineering practices are
efficient. The Commission noted that most facilities were placed when the incumbents
were regulated monopolies and, as such, the incumbents did not have the proper
incentives to construct their networks efficiently. Moreover, the Commission suggested
that a fill factor below 50 % would indicate an inefficient network:

⁵⁶ Calculated as working loops divided by available loops. SBC’s actual fill study adjusts the denominator by subtracting available uncommitted loops, for which we did not have the data.

Most ILEC facilities were placed when the telecommunications industry was a regulated monopoly, and placement of an efficient network was not necessarily a primary objective. Presuming that an ILEC's network is efficient will probably tend to increase UNE rates. For example, high fill factors would exist in an efficient network, while a fill factor of less than 50% would indicate that the network was not designed for efficiency.⁵⁷

While we believe the 50% value identified by the Commission is remarkably conservative (i.e., a much higher level of fill should still be considered inefficient), we believe the Commission's rationale is perfectly suited to rebut SBC's fill factor proposal in this docket.

Q. DID THE COMMISSION EXPRESS ITS OPINION REGARDING APPROPRIATE FILL FACTORS IN ITS RECENT COMMENTS TO THE FCC?

A. Yes, it did. The Commission stated that the forward-looking fills approved in its first TELRIC Order – fills based on the target fill concept – are “within the range of acceptable approaches.”⁵⁸ The Commission also confirmed its belief that, “... forward-looking costs are most appropriately recovered through forward-looking fills and depreciation lives. Other than the change in Illinois statute discussed above, the ICC

⁵⁷ Id., pp. 33-4.

⁵⁸ Id., p. 48.

has not been presented with any compelling evidence showing that this is not an appropriate means of setting UNE rates.’⁵⁹

In addition, the Commission expressed its concern that adopting actual fill factors would dramatically increase UNE prices. In fact, the Commission found that UNE prices would have, in some cases, doubled had the rate changes mandated by the fill factor and depreciation requirements of the enjoined Section 13-408 of the Illinois Public Utilities Act gone into effect.⁶⁰ The Commission also provided a number of examples illustrating how competition in local markets benefits consumers in Illinois, and noted that this trend might not continue if UNE prices are increased.⁶¹

IVE (ii). Actual Fill Factors

Q. MR. SMALLWOOD CLAIMS ON PAGE 46 OF HIS REBUTTAL TESTIMONY THAT YOU HAVE MISCHARACTERIZED THE FCC’S GUIDANCE ON THE USE OF ACTUAL FILL FACTORS. IS HE CORRECT?

A. No. Mr. Smallwood fails to discredit or rebut our explanation of the FCC’s *Local Competition First Report and Order*. Mr. Smallwood claims that no one else agrees

⁵⁹ Id., pp. 52-3.

⁶⁰ Id., p. 51.

⁶¹ Id., p. 52.

with our position that actual fill factors cannot be used. Mr. Smallwood is mistaken. For example, he implies that the U.S Court of Appeals for the Seventh Circuit agrees with his position that actual fill values are the appropriate fill factors to use. A plain reading of the citation included at page 41 of Mr. Smallwood's rebuttal testimony clearly demonstrates that, according the Seventh Circuit, current fill factors may be used *only* if they are the most efficient ones or are within a range that is a reasonable estimate of that amount. As the aforementioned ICC comments to the FCC indicate, SBC's actual fill factors cannot be reconciled with those of an efficient, forward-looking network. The Michigan Public Service Commission Staff also opined that SBC's calculation of fill factors using its actual fill based on its current utilization of the existing network violates the FCC's TELRIC requirements. The Michigan Staff's specific concerns with SBC's fill factor proposal are noted in detail in the following citation:

SBC has clearly misinterpreted the FCC's requirements for a TELRIC compliant calculation of the fill factor. Staff has found no indication in its review of the FCC's First Report and Order that there was any intent by the FCC to permit the use of a fill factor based on the current usage of SBC Michigan's embedded network built over its lengthy history. SBC's existing network utilization cannot be reasonably expected to mimic utilization inherent in an efficient, forward looking network design and consistent with the FCC's TELRIC rules. SBC has erroneously relied on a point in time for its actual fill factors, which reflect its existing legacy network, consisting of a mixture of older technology and more recent additions of newer technologies. This is the "actual" fill relied on by SBC in its fill factors. The FCC's requirement in paragraph 682 noted above, does not permit use of an embedded concept of "actual". The term "actual" as used by the FCC is specific to the demand used to develop per-unit costs,

not the actual level of fill that will result. It is imperative that there be a proper matching between the TELRIC total cost of an efficient forward-looking network and the TELRIC per-unit derivation that results. The term “actual”, as used by the FCC refers to a reasonable projection of the actual total usage (demand) used to develop the forward-looking network.⁶²

We present evidence in Section IVF below that convincingly demonstrates that SBC’s actual fill factors are not efficient or forward-looking, and must be rejected by the Commission.

Q. IS MR. SMALLWOOD’S INTERPRETATION OF THE FCC’S TELRIC NPRM CORRECT?

A. No, it is not. Mr. Smallwood also contends that based on its preliminary views expressed in its TELRIC NPRM, the FCC does not agree with our interpretation of forward-looking efficient fills. As we discussed in Section IVC (i) earlier in our response to a similar assertion made by Mr. William Palmer, Mr. Smallwood’s opinion has no basis in fact. The FCC reached no conclusions in this NPRM, nor did it provide any affirmative statements; rather, it posed a series of questions only. What the FCC did do in its NPRM was clarify its existing rules and, in doing so, made it clear that the existing rules do not support using actual fill factors as advocated by Mr. Smallwood and SBC.

⁶² See *In the matter, on the Commission’s own motion, to review the costs of telecommunications services provided by SBC Michigan*, Case No. U-13531, Initial Comments of the Michigan Public Service Commission Staff, January 20, 2004, pp. 25-26.

1948

1949 **Q. STAFF WITNESS DR. QIN LIU POINTS OUT THAT WHEN CHOOSING**
1950 **THE APPROPRIATE FILL FACTORS, THE COMMISSION SHOULD**
1951 **MAKE TWO DECISIONS: 1) CHOOSE BETWEEN THE ALTERNATIVE**
1952 **FILL CONCEPTS, AND 2) DECIDE THE VALUES THAT THE SELECTED**
1953 **FILL CONCEPT SHOULD TAKE. DO YOU AGREE?**

1954 **A.** Yes, we do. For example, and completely hypothetically, if the Commission were to
1955 (inappropriately) decide to adopt the concept of actual fill factors, it should not
1956 necessarily use the values SBC proposes. As we discuss in Section IVF of our
1957 surrebuttal testimony, only some of SBC's proposed fill factors are based on actual
1958 information. In addition, SBC's actual fill study must be closely audited. This would
1959 include verifying the information from the database(s) from which SBC extracts its
1960 facility counts and determining whether all the components of the capacity in SBC's fill
1961 formula should be used.

1962

1963 **Q. HAS THE ICC RECENTLY COMMENTED ON PROBLEMS STEMMING**
1964 **FROM FILLS BASED ON ACTUAL USAGE?**

1965 **A.** Yes. As noted in Section IVE (i) of this rebuttal testimony, the ICC does not support
1966 fills based on actual usage.

1967

**IVE (iii). Dr. Qin Lui's Proposed Forward-Looking Actual Fill Factor
Methodology**

**Q. STAFF WITNESS DR. QIN LIU SUGGESTS A NEW CONCEPT FOR FILL
FACTORS – ONE BASED ON THE SUM OF FUTURE DEMANDS AND
TOTAL FORWARD-LOOKING CAPACITY. HOW DO YOU EVALUATE
THIS PROPOSAL?**

A. We are afraid that Dr. Qin Liu's conceptual framework creates more questions than answers. Additionally, Dr. Qin Liu's testimony directly contradicts the direct testimony submitted by Staff witness Mr. Bud Green, who recommended that the Commission affirm the target fill factors it adopted – as a result of well-reasoned analysis based on a complete record -- in its *Second Interim Order*. It should be clear to the Commission by now that the parties to telecommunications proceedings are unable to agree on what constitutes current network capacity, an efficient network or efficient engineering practices in plant deployment. Despite this already existing degree of disagreement, Dr. Qin Liu suggests expanding the list of issues to be debated in this proceeding to include at least the following: (1) How should we properly forecast appropriate demand, especially in the light of the rapid changes in technology and regulatory environment? (2) What should be the planning horizon? (3) What discount rate should be used in summing demands from different time periods? Clearly, forecasting demand is a significant undertaking, especially in telecommunications where demand is not "portable" because it is associated with a specific geographical location. This uncertainty of future

1990 demands and the speculative nature of its projections were two of the primary reasons
1991 the FCC explicitly rejected the use of ultimate demand in calculating fill factors. In a
1992 nutshell, Dr. Qin Liu's analysis does little more than to revive the notion of using ultimate
1993 demand for purposes of gauging appropriate fill factors, without providing any realistic
1994 manner by which to forecast it or account for it economically when setting rates for
1995 current customers. As such, her theory is interesting, but we're afraid it provides the
1996 Commission no insight toward ultimately choosing a level of fill to be adopted in this
1997 proceeding.

1998

1999 **Q. DID STAFF'S WITNESS DR. QIN LIU PROVIDE ANY DETAILS AS TO**
2000 **HOW SHE INTENDS TO DETERMINE FORWARD-LOOKING**
2001 **CAPACITY?**

2002 **A.** No, her rebuttal testimony was silent on this issue. Consequently, in AT&T Data
2003 Request MS-111, we asked Dr. Qin Liu how she would calculate forward-looking total
2004 network capacity according to her forward-looking actual fill concept. Her response
2005 lacked any substantive details about how one would go about determining such
2006 capacity:

2007 The total network capacity refers to the total network capacity of
2008 the FCC prescribed forward-looking most efficient network,
2009 which is to be used (in principle) to derive the UNE rates. If a
2010 particular "network" meets the FCC's forward-looking most
2011 efficient design standard, then all capacity built into that network
2012 would be included in calculating the "forward looking total
2013 network capacity.

The response above is a very high level definition, but it provides no insight into how Dr. Qin Liu would recommend that we actually put a number to the theory; hence, we are at somewhat of a loss as to how to analyze her proposal in any level of detail beyond the theoretical level. Nonetheless, in a series of recent data requests Staff issued to SBC, Dr. Qin Liu has asked SBC to provide detailed data on SBC's actual loop inventories. Therefore, we assume that Dr. Qin Liu intends to use SBC's loop inventory data in some fashion in order to derive her view of forward-looking network capacity. If this supposition is correct, we recommend Dr. Qin Liu examine our detailed analysis of SBC's loop inventory and SBC's methodology of calculating actual fill factors in Section IVF (i) of this testimony to assess the viability of using SBC's actual data.

IVF. SBC'S ACTUAL FILL FACTORS ARE NOT FORWARD-LOOKING

Q. SBC WITNESS MR. WHITE STATES ON PAGE 3 OF HIS REBUTTAL TESTIMONY THAT THE FILLS UTILIZED IN MR. SMALLWOOD'S LOOP STUDIES REPRESENT ACTUAL FILLS. IS THIS AN ACCURATE STATEMENT?

A. Only to a certain degree. There are at least five reasons why Mr. White's statement is not completely accurate. First, SBC's proposed fill factors for its high capacity loops are based on mere estimates of SBC's subject matter expert, not on any estimate of

actual utilization. Second, SBC's fiber feeder fills are calculated as a product of two percentages, one taken from SBC's inventory data, and the other from a fiber strand count that conflicts with SBC's ARMIS data (we discuss this issue in detail below). As such, we are unclear as to how SBC rectifies its various sources of "actual data" for purposes of determining, even consistent with its own theory, its actual level of spare capacity.

Third, to determine the fill factor for its NID/Building entrance facility, SBC failed to use any kind of actual NID inventory or its engineering data at all. Instead, SBC calculated the fills indirectly from its billing data by counting lines associated with a particular billed entity in a particular location. As already explained by AT&T witnesses Messrs. Pitkin and Turner in their direct testimony, these calculations fail to account for the undisputed fact that multiple businesses share the same building and, therefore, understate the fills. In addition, SBC improperly discarded some of its billing data pertaining to customer locations with over 900 lines per location, which are the customers with higher than average fills. This, too, serves to understate fills. Further, in its revised loop cost studies submitted in January 2004, SBC added a new type of residential termination equipment – terminals for multiple dwelling units. SBC did not provide any support for the fill factors of these terminals.

Fourth, as we show below, SBC classifies some of its defective pairs as Universally Bad Pairs – pairs that it considers uneconomical to recover and should not, therefore, be included in any fill factor calculation. While these pairs continue to be tracked in SBC’s loop inventories, no service can be assigned to them. Therefore, these pairs do not appropriately constitute network capacity and must be excluded from the denominator of any fill factor calculation.

Finally, while SBC did use its loop inventory to calculate fills of copper distribution and feeder and feeder pair-gain devices, as we illustrate below, the accuracy of this database is questionable at best. SBC does not conduct systematic audits of this database. Therefore, this database reflects decades of facility modifications, and inadvertently accumulates errors, especially with regard to inactive facilities. Our conclusion that this database is inaccurate is also supported by the discrepancies that we have been able to identify relative to the database in just the short time within which we have analyzed it.

Q. MR. WHITE ALSO CONTENDS ON PAGE 5 OF HIS REBUTTAL TESTIMONY THAT SBC’S ACTUAL FILLS REFLECT AN EFFICIENT NETWORK AND “THE MOST REASONABLE PROJECTION OF FUTURE UTILIZATION.” DO YOU AGREE WITH THESE STATEMENTS?

2074 A. No, absolutely not. First, based on SBC's own data, its fill factors have been
2075 decreasing as a result of the fact that SBC has been increasing total capacity while
2076 usage has been decreasing. Below we discuss the possibility that the SBC/Ameritech
2077 merger conditions, which limited removal of copper facilities, caused a temporary
2078 increase in spare capacity. Consequently, it appears that this redundant capacity has
2079 been (or if it has not, will be) removed since the date SBC submitted its fill study, which
2080 significantly changes the study's premise.

2081
2082 Second, the percentage of defective pairs in SBC's network has been growing
2083 noticeably – a trend that is certainly not characteristic of an efficient network, but
2084 instead highlights a network experiencing dramatic technological overhaul. In some wire
2085 centers defective pairs constitute over [*** XX % ***] of capacity, which can hardly
2086 be considered unavoidable or appropriate in a forward looking, efficient network. The
2087 more likely scenario is that SBC is aggressively overlaying its existing copper network
2088 with a more advanced fiber network and, in doing so, is willing to accumulate enormous
2089 amount of *short-term* spare capacity for the benefits the new technology will bring in
2090 the long term.

2091
2092 Third, defects are likely to occur in older facilities that have been already depreciated.
2093 Hence, to the extent defective pairs are considered in the denominator of an "actual fill"
2094 calculation, the resultant factor is understated. Further, it is important to note that a

good deal of SBC Illinois' existing non-defective facilities has already been fully depreciated; consequently, SBC has already recovered the capital it invested in those facilities. Therefore, to include these facilities in a calculation aimed at recovering future costs would violate cost causation principle and lead to over recovery. As such, these defective facilities should not be included in any forward-looking pricing methodology.

Fourth, SBC calculates extremely and inexplicably low fiber feeder fills –between [*** XXX% ***]. Even assuming these are currently accurate – a stretch in and of itself -- fills this low would never occur in a forward looking, efficient network and cannot be sustained for any significant period of time. Again, we believe these fill levels reflect the fact that many of these fibers are relatively newly deployed and were placed far in advance of any known demand. In fact, we strongly believe that the reason SBC built such excessive capacity is that it anticipates a surge in bandwidth demand. This implies that SBC expects a relatively significant increase in bandwidth demand at some point in the near future, and that these facilities are not meant to represent efficient network size relative to current (or “actual”) demand as required by the FCC. In other words, these fills do not represent long-term utilization levels associated with an efficient carrier but, again, represent fill levels indicative of a network in technological transition.

Fifth, SBC's broadband initiative causes both copper and fiber fills to decrease during the transitional period while the broadband facilities are deployed. At the same time,

2116 the upgraded network elements do not support stand-alone UNE loops, according to
2117 SBC. Therefore, SBC's proposed fills are not only transitional, but also force
2118 competitors to subsidize the deployment of facilities that may not be unbundled for their
2119 benefit. Later in this testimony we discuss all five points in detail.

2120

2121

IVF (i). Inaccuracies in SBC's Fill Study of Copper Loop and Pair Gain Devices

Q. PLEASE DESCRIBE SBC'S METHOD OF CALCULATING ACTUAL FILL FACTORS FOR ITS FEEDER AND DISTRIBUTION FACILITIES.

A. SBC extracted its outside plant assignment data from its LEIS/LEAD system⁶³ for the month of January 2002. SBC used these data⁶⁴ to calculate actual fill factors according to the following general formula:

$$\text{Fill Factor} = \frac{\text{Working Pairs}}{\text{Usable Pairs}}$$

Working pairs are from the extracted database, and usable pairs are calculated from several measures of the same database.

Q. HOW DOES SBC CALCULATE USABLE CAPACITY FROM THE DATA IN ITS LEIS DATABASE?

A. SBC uses two different methods, depending upon the type of facility in question. For DLC plug-in equipment (the simplest example), SBC counts usable pairs simply by summing the number of equipped pairs in the database. For the three other segments – copper distribution, feeder and DLC chassis – SBC defines usable pairs as available

⁶³ This is referred to below as "LEIS database." The description of SBC's fill study is based on the direct testimony of Randall White submitted December 24, 2002 and SBC's fill factor study *ILCurrentFillData2002 (Jan02).xls*.

⁶⁴ SBC provided these data in its original filing as file *ILCurrentFillData2002 (Jan02).xls* among other materials in support of its Loop study.

pairs minus *uncommitted* (not connected through) pairs, which is equivalent to the sum of working, *other assigned*, *spare committed* and *defective* pairs. As such, SBC's generally methodology (at least with respect to copper cables and DLC hardware facilities) can be further defined by the following equation:

$$FillFactor = \frac{Working\ Pairs}{(Working + Other\ Assigned + Spare\ Committed + Defective\ Pairs)}$$

Of further note is that SBC counted feeder facilities as those terminating at the central office and distribution cables as cables terminating at the Feeder-Distribution Interface.⁶⁵

Q. HOW CAN THE COMMISSION ASSESS THE ACCURACY OF SBC'S FILL STUDY?

A. The key issue is the accuracy of SBC's outside plant assignment database. Unfortunately, we do not have any meaningful way to verify its accuracy. While SBC's count of *working* pairs can be roughly checked by looking at the line count data, there is no alternative source for *non-working* capacity against which SBC's reported spare

⁶⁵ In a response to AT&T Data Request MS-141, SBC explained that in some cases, distribution cable is classified as F2, F3 and etc., and the LEIS database, which counts Fn cables, would add up these sequential segments of distribution cable. SBC noted that this is not a standard engineering procedure and it is likely to be associated with older plant.

capacity could be verified. The publicly available ARMIS Infrastructure Report 43-07 contains feeder capacity counts, but is actually generated from the same LEIS system.⁶⁶

Q. HAS SBC ESTABLISHED PROCESSES TO AUDIT THE INFORMATION IN ITS LEIS DATABASE?

A. AT&T asked SBC this question in discovery.⁶⁷ SBC provided a vague response that it is each engineer's/planner's responsibility to update and review the data, and that reviews and updates are done "as required."⁶⁸ SBC did not provide any detail as to how often these reviews are actually required. SBC also mentioned a more specific procedure: i.e., each month certain computer programs look for discrepancies in the database. Another discovery question requested reports of any audits conducted on SBC's LEIS database in the last three years.⁶⁹ SBC responded that there "are no reports of audits on the LEIS system over the past three years."⁷⁰ From this information, we concluded that updates to the LEIS database are likely to be either small-scale – made when an engineer works on a particular network segment, or limited to the scope of obvious inconsistencies that a computer program can detect. SBC did not identify any significant and systematic procedures in place for auditing the entire

⁶⁶ See Telcordia Technologies *LEAD/FACS/PVI User Guide and Methods and Procedures*. BR 901-600014. Issue 15, June 1999, section 10.10. Provided in SBC's response to AT&T Data Request BFP-175.

⁶⁷ See SBC's response to AT&T Data Request BFP-181.

⁶⁸ Id.

⁶⁹ See SBC's response to AT&T Data Request BFP-182.

⁷⁰ Id.

inventory of its outside plant facilities. Without a systematic audit, the accuracy of a database of such detail, size and long history is highly questionable.

Q. DO THE LEIS-RELATED MANUALS POINT TO POTENTIAL ERRORS IN FILL CALCULATION THAT MIGHT ARISE BECAUSE OF THE WAY THE DATA ARE STORED IN THIS DATABASE?

A. Yes, they do. Telcordia's *LEAD/FACS/PVI User Guide and Methods and Procedures* mentions that some cables could be incorrectly classified as feeder cables terminating at the central office.⁷¹ These cables might actually be cables working within a central office, distribution cables inventoried as feeder for convenience or feeder cables owned by another company. Obviously, such incorrect classifications would distort the fill calculation for feeder and distribution.

The same manual explains that spare pairs would be over-stated for some DLC systems that provide special and coin lines.⁷² This happens because two pairs would be associated with these lines, even though only one pair would be working. The other pair is counted as spare but it cannot be used to provide service. SBC's *Consolidated Loop Reference* document⁷³ describes a similar situation where pairs would be

⁷¹ See Telcordia Technologies *LEAD/FACS/PVI User Guide and Methods and Procedures*. BR 901-600-014. Issue 15, June 1999, Section 10.12.5. Provided in SBC's response to AT&T Data Request BFP-175.

⁷² Id., Section 4.9.

⁷³ See SBC *Consolidated Loop Document*, Section 1.4.1.7, which was provided in response to Staff Data Request QL-4.14.

2190 considered as available facilities but, in reality, are unavailable: *idle assigned* pairs (a
2191 type of *other assigned* pairs) include “derived pairs made unavailable for service by
2192 virtue of special service plug-ins in adjacent slots (e.g. ISDN & coin cards on Digital
2193 Loop Carrier), or ports not utilized by the equipped plug[in].” Another specific
2194 problem is the identification of facility segments and classification of cables associated
2195 with remote switching units (“RSUs”). These cables can be classified differently
2196 depending on whether the remote switch is inventoried as a cross box or a switching
2197 frame, which would result in different counts of feeder cable. SBC actually used this
2198 situation as a possible reason for the observed mismatch between its feeder and
2199 distribution facilities in several offices.⁷⁴ SBC explained that such a mismatch could
2200 have happened because cables between central offices and RSUs were not counted as
2201 feeder facilities in the LEIS database.

2202
2203 The Bellcore *Loop Technology Planning* manual warns⁷⁵ that when examining facility
2204 assignment reports for the available spares, the planner needs to be aware of cables
2205 scheduled for retirement. Similarly, SBC’s guidelines for facility expansion planning
2206 instruct its personnel to identify candidates for removal when determining available

⁷⁴ SBC’s Response to AT&T MS-141.

⁷⁵ See *Bellcore Practice BR 916-100-017, Loop Technology Planning, Issue 2, June 1993*, p.5-7 which was provided in SBC’s response to Staff Data Request PL 1.24.

capacity.⁷⁶ Clearly, pairs that are scheduled for retirement do not constitute usable capacity and should not be counted in the fill calculation.

Q. WERE YOU ABLE TO IDENTIFY ANY ANOMALIES IN SBC'S FILL DATA?

A. Yes, we were. First, in several rural wire centers the number of total working feeder pairs is less than the number of working copper distribution counts. In response to AT&T Data Request MS-141, SBC explained that this mismatch might be occurring because LEIS does not track the feeder between a host switch and a Remote Switching Unit (RSU) that is embedded inside the host. SBC's response also noted that the RSU is not a forward-looking technology. However, this explanation does not remedy the mismatch because in a forward-looking network, these lines would require a feeder facility that the LEIS database does not register. In other words, SBC's count of working feeder is insufficient to support its working copper distribution. Second, for another set of wire centers, total working feeder counts are less than the residential and business line counts reported by SBC in its NID fill studies.⁷⁷ Again, it appears that the count of working feeder facilities falls short of the amounts necessary to support the number of working lines. Third, for a number of months in particular wire centers, the

⁷⁶ See SBC *Consolidated Loop Document*, section 1.9.8, which was provided in response to Staff Data Request QL-4.14.

⁷⁷ See SBC's files *AIT-Res-Prim-Adl-Lines_IL 2002.xls* and *AIT-Bus-Prim-Adl-Lines_IL 2002.xls* provided in SBC's original filing in support of its loop study.

count of uncommitted pairs is greater than the count of spare pairs, despite the fact that uncommitted pairs are supposed to be a subset of spare pairs.⁷⁸ Quantitatively, the effect of this particular discrepancy is small, but it, along with the other more substantive examples above, illustrates an important fact: i.e., SBC is relying upon its LEIS/LEAD database for information it was never intended to provide (i.e., an overall measure of spare capacity available in the network). SBC's programs – designed to discover such discrepancies – should have identified these obvious errors. If SBC's programs failed to detect these obvious errors, they have certainly failed to detect the less obvious ones.

Q. IN HIS REBUTTAL TESTIMONY, MR. SMALLWOOD CLAIMS THAT CURRENT FILLS ARE THE BEST ESTIMATE OF FUTURE UTILIZATION.⁷⁹ HOW DO SBC'S FILL FACTORS CHANGE OVER TIME?

A. Based on the SBC data extracted from LEIS, there has been a steady decrease in SBC's reported actual fills over the last few years. The following two tables summarize SBC's distribution and feeder fill factors for the available time periods. The main observation to be gleaned from these tables is that fill factors are falling because SBC's reported *capacity* (usable pairs) is growing faster than its reported *usage* (working

⁷⁸ Data sources are 12 fill files from October 2001 through September 2002 provided in SBC's response to AT&T Data Request BFP-249. This discrepancy existed for derived feeder facilities in one wire center for 11 out of 12 months and for distribution copper for the last 3 months in another wire center.

⁷⁹ See rebuttal testimony of James Smallwood, submitted January 20, 2004, p. 49.

pairs). In fact, distribution usage has been *falling* starting in 2001, while *capacity has continued to increase*. In contrast, from 1997-1998, in a similar situation of falling usage, SBC did not increase capacity. Rather, SBC drastically decreased its capacity, as the first table shows. This data once again supports our contention that the relatively high level of spare capacity existing in the SBC network at the time SBC calculated its “actual fill” factors is a result of the technological overhaul SBC has undertaken with respect to its network, and not a sustainable efficient level of spare capacity that would occur in the long term.

***** BEGIN CONFIDENTIAL *****

SBC’s Copper Distribution Fills in Illinois in 1997-2003⁸⁰

⁸⁰ Calculated from data sources: a) for 1997-2000: Excel attachment to SBC’s Supplemental Response to AT&T MS-55; b) for 1/2002: SBC’s fill study *ILCurrentFillData2002 (Jan02).xls*; c) for 2002 and 2003: attachment to SBC’s response to Staff Data Request QL-4.10.

2262
2263
2264
2265 ***** END CONFIDENTIAL ***]**

2266 Note that the statewide fill factors do not reflect the same degree of disconnect between
2267 changes in demand and capacity. For example, what looks like a moderate [*** XXX
2268 % ***] growth in capacity during 2002 actually included a large amount of plant
2269 removal in wire center CHCGILMO, which caused a negative capacity growth of [***
2270 XXX % ***] in SBC's suburban zone. The details of this plant removal are discussed
2271 in Section IVF (ii) of our surrebuttal testimony. Conversely, capacity increased in the
2272 other two zones by a total of [*** X% ***] despite the continued decline in the
2273 number of working pairs in these zones.⁸¹ Given that in 2002 SBC instituted more
2274 stringent guidelines for plant deployment on a temporary basis,⁸² one has to wonder
2275 how efficient SBC is at forecasting growth and planning its network. One also has to
2276 wonder *why capacity is growing despite a decrease in demand*.

2277
2278 For DLC feeder, usage has been increasing in recent years, but its growth rate was several
2279 times lower than the growth in overall DLC capacity. What is particularly notable in the
2280 second table is that defective pairs grow faster than the available capacity in the timeframe

⁸¹ Growth rates for all zones are calculated from the attachment SBC provided in response to Staff Data Request QL-4.10.

⁸² See direct testimony of Randall White, p. 10 and SBC's Response to Staff Data Request PL 1.07a.

2281 studied. For example, for DLC feeder, defective pairs grew by over [*** XX% ***] in
2282 12 months, which is several times higher than the growth in all available DLC capacity.
2283 Again, changes in capacity do not seem to be aligned with the changes in usage. As we
2284 explain below, such disparity between the growth rate of capacity and usage of DLC
2285 equipment can only be explained by the massive overlay project that SBC is conducting in
2286 anticipation of the future demand for its bandwidth services.

2287 [*** BEGIN CONFIDENTIAL ***]

2288 **Decrease in SBC's Fills in Illinois during October 2001 - September 2002⁸³**

2297 [*** END CONFIDENTIAL ***]

2299 ***IVF (ii). Inappropriate Components in Total Capacity***
2300

⁸³ Calculated from the data source: files provided in SBC's response to AT&T Data Request BFP-249.

2301 **Q. STAFF WITNESS DR. QIN LIU SUGGESTS THAT REDUNDANT CAPACITY**
2302 **SHOULD NOT BE INCLUDED IN THE CALCULATION OF A FORWARD-**
2303 **LOOKING FILL.⁸⁴ DO YOU AGREE?**

2304 A. Absolutely. Dr. Qin Liu described two situations of *redundant capacity* – demand
2305 projection that did not materialize and population depletion. The redundant segment of
2306 the network would not be built if we had better information, or this segment would
2307 eventually be removed or abandoned in place. Actual fill factors would include this
2308 redundant capacity despite the fact that there is no need to “recreate” redundant
2309 capacity in a forward-looking cost model. In fact, such redundant capacity is
2310 inconsistent with a forward looking network construct. One example of such redundant
2311 capacity is SBC’s substitution of copper feeder with fiber facilities through an overlay
2312 process (an activity that is clearly at the heart of SBC’s current network deployment
2313 strategy).

2314
2315 **Q. WOULDN’T SBC HAVE REMOVED REDUNDANT CAPACITY WHERE**
2316 **IT EXISTED?**

2317 A. Not necessarily. Note that certain regulatory factors that were in effect before and
2318 during the period in which SBC undertook its fill study may have temporarily retarded
2319 SBC’s progress in removing redundant capacity based upon its own regulatory
2320 commitments. For example, in September 2000 the FCC, in its SBC/Ameritech

⁸⁴ See rebuttal testimony of Qin Liu submitted January 20, 2004, p. 31.

2321 Merger Order,⁸⁵ temporarily restricted the retirement of SBC's copper plant.

2322 According to these merger conditions, from September 2000 to September 2003, SBC
2323 was not allowed to retire more than 5 % of the total copper mainframe terminated plant
2324 in service in September 2000. In addition, for one year starting in September 2000,
2325 SBC was not allowed to retire any mainframe terminated copper plant overlaid by
2326 NGDLC facilities. Therefore, it is likely that SBC was not retiring its copper plant as
2327 quickly as it would otherwise have done so as a result of these exogenous one-time
2328 restrictions. In such a situation, spare copper feeder in SBC's fill factor study (dated
2329 January 2002) would show an increase, but this increase would be of a temporary
2330 nature linked directly to SBC's merger with Ameritech.

2331
2332 **Q. IN YOUR REVIEW OF SBC'S LOOP INVENTORY DATA, DID YOU FIND**
2333 **ANY CASES THAT SUGGESTED THAT REDUNDANT CAPACITY WAS**
2334 **IDENTIFIED AND REMOVED BY SBC SUBSEQUENT TO THE TEST**
2335 **YEAR IT USED FOR ITS FILL DATA?**

2336 **A.** Yes, we did. A comparison of the January 2002 data (the fill study) to the similar data
2337 provided by SBC for other months⁸⁶ reveals some noticeable changes in the wire center
2338 facilities counts. For example, between January 2002 and September 2002 the number

⁸⁵ See *In the Matter of Ameritech Corp., Transferor, and SBC Communications Inc., Transferee. Second Memorandum Opinion and Order*, CC Docket No. 98-141, ASD File No. 99-49. Released 9/8/00. Appendix A, paragraph 7.

⁸⁶ Files for October 2001 through September 2002 provided in SBC's response to AT&T Data Request BFP-249 (The file for January 2002 contains the data used for SBC's fill study).

of available copper distribution facilities in wire center CHCGILMO dropped by [***
XXXX ***] lines, or [*** XX% ***] of total available capacity in this wire center,
including a one-month decrease of over [*** XXXXX ***] available pairs.

**Q. HAS SBC CONTINUED TO REMOVE COPPER FACILITIES THAT WOULD
HAVE BEEN COUNTED AS AVAILABLE FACILITIES IN ITS FILL FACTOR
STUDY?**

A. Staying with that same central office (CHCGILMO), we see that the decrease in usable
capacity in this wire center continued through 2002 and 2003, and the total reduction is
equal to [*** XX% ***] of usable capacity previously captured in SBC's fill study.⁸⁷
Compared to other wire centers in SBC Illinois's database, this wire center continues to
have one of the lowest fill percentages. For example, in January 2002, the timeframe
included in SBC's study, central office CHCGILMO had the second lowest distribution
fill at [***XX% ***].⁸⁸ We can only speculate that this drastic reduction in available
capacity was not a database adjustment but, rather, occurred as a result of the removal
of inefficient facilities. If SBC did indeed undertake such significant effort in removing
this capacity in 2002 and 2003, then this capacity was not efficient and should not have
been included in what SBC characterizes as and includes in the calculation of a
forward-looking fill. This type of dramatic change over time due to ongoing engineering

⁸⁷ See attachment to SBC's response to Staff Data Request QL-4.10 which contains distribution, capacity and usage data by year.

⁸⁸ Calculated from SBC's fill study file *ILCurrentFillData2002 (Jan02).xls*.

activities also highlights the relatively volatile nature of relying upon an “actual fill” methodology, another fatal flaw to SBC’s proposal.

Q. STAFF WITNESS DR. QIN LIU STATES THAT ONLY A SMALL PORTION OF SPARE CAPACITY IS BUILT BECAUSE OF DEFECTIVE LOOPS.⁸⁹ DO YOU AGREE?

A. Dr. Qin Liu provides no data in support of her contention; hence, we cannot directly critique her analysis. However, the data available in this case from SBC would appear to refute her claim. The following table lists SBC’s defective pairs as percentages of the total usable pairs (the denominator of SBC’s fill factor). As the table demonstrates, defective pairs constitute almost [*** XX% ***] of copper feeder, and over [*** X% ***] of copper distribution *usable* capacity in the state. Obviously, in some wire centers these percentages are higher than the average, with the maximum defective percentages being [*** XX% ***] for copper and over [*** XX% ***] for DLC chassis. The share of defective pairs is even higher when calculated as a percent of *spare* capacity. For example, on the statewide level, defective copper feeder constitutes [*** XX% ***] of spare capacity, including over [*** XX% ***] in the suburban zone. In other words, spare capacity in the state could be decreased by [*** XX ***] if not for the large number of SBC’s defective pairs.

⁸⁹ See rebuttal testimony of Qin Liu submitted January 20, 2004, p. 9, footnote 16.

[*** BEGIN CONFIDENTIAL ***]

Defective Pairs as Percentage of Usable Pairs in SBC's Fill Study⁹⁰

[*** END CONFIDENTIAL ***]

**Q. THIS TABLE SHOWS THAT A SIGNIFICANT PORTION OF SBC'S
CAPACITY IS DEFECTIVE. SHOULD ALL DEFECTIVE PAIRS BE
INCLUDED IN THE CALCULATION OF AN ACTUAL FILL FACTOR?⁹¹**

A. No, they should not. Clearly, no efficient, forward-looking design would include such high percentages of defective pairs. Inclusion of *all* defective pairs in the fill factor denominator improperly increases the denominator and lowers the actual fill factor. Theoretically, defective pairs can be repaired and made available for provisioning the service. However, SBC's actual percentages of defective pairs are too high to be

⁹⁰ Calculated from SBC's actual fill study, file *ILCurrentFillData2002 (Jan02).xls*.

⁹¹ See direct testimony of Randall White submitted December 23, 2002, p. 27.

2396 seriously considered forward-looking – the claim SBC makes about its actual fills.⁹²

2397 Further, SBC’s loop assignment data, as well as its procedures for defective pair
2398 recovery and its guidelines for its outside plant force, clearly state that SBC classifies
2399 some of its defective pairs as uneconomical to recover and, hence, unusable. Below we
2400 describe the nature of this evidence. And finally, defects are more likely to occur in
2401 older plant – plant that has already been depreciated and does not, therefore, constitute
2402 allowable cost.

2403
2404 **Q. WHY DO YOU BELIEVE SBC HAS SUCH A HIGH PERCENTAGE OF**
2405 **DEFECTIVE PAIRS?**

2406 A. Again, it is likely a result of two factors: (1) the sheer age of SBC’s outside plant as a
2407 whole and (2) the fact that SBC is overlaying its existing network with a new technology
2408 (and is thereby foregoing maintenance on defective pairs relying, instead upon older
2409 technology and simply building new facilities). Both would explain the substantially
2410 exaggerated level of defective plant that appears to exist in the SBC Illinois network, as
2411 well as the remarkably high level of short-term spare capacity.

2412
2413 **Q. STAFF WITNESS DR. QIN LIU STATES THAT “NON-REVENUE**
2414 **GENERATING CAPACITY” (SPARE CAPACITY) INVOLVES**

⁹² See, for example, rebuttal testimony of Randall White submitted January 20, 2004, p.4.

**INVESTMENT COST THAT HAS TO BE RECOVERED FROM THE
WORKING CAPACITY.⁹³ IS THIS ALWAYS THE CASE?**

A. As a general rule, Dr. Qin Liu is correct. However, defective pairs are a notable exception. Depreciation rates already reflect the fact that facilities will eventually become defective at some point and can no longer be used. Hence, if we include defective pairs in the gauging of the capacity required in a forward-looking network, we in effect double recover costs associated with defective plant. From the standpoint of both accounting and forward-looking cost modeling, the costs of fully depreciated facilities, *whether working or defective*, are zero and, therefore, should not be included in pricing UNE elements.

**Q. HOW MUCH OF THE SBC'S OUTSIDE PLANT IN SERVICE IS
DEPRECIATED?**

A. A significant portion of SBC's outside plant in service is fully depreciated and does not appear in its accounting books. In a discovery response, SBC provided⁹⁴ these data for a number of accounts that involve outside plant. The table below lists these data by network component to which fill factors apply in SBC's loop studies. Though there is not a one-to-one correspondence between these network components and plant accounts (for example, plant accounts do not distinguish between feeder and distribution), these data still provide a good insight into the extent of depreciation of the existing plant facilities. As the table

⁹³ See rebuttal testimony of Qin Liu, submitted January 20, 2004, p. 12.

⁹⁴ Attachment to SBC's Response to Joint CLECs 1.102.

2434 demonstrates, over [*** XX % ***] of SBC's copper facilities in service are fully
2435 depreciated. At the same time, SBC proposes, through the use of its actual fill factors, to
2436 include the costs of all these facilities in the loop price. In other words, for every two
2437 copper pairs that engineering guidelines place for an average residential unit, one pair in
2438 SBC's network is fully depreciated and does not exist from the accounting and economic
2439 standpoint and, therefore, should not be included in UNE prices.

2440
2441 [*****BEGIN CONFIDENTIAL*****]
2442

Depreciation and Proposed Fills of SBC's Outside Plant⁹⁵

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⁹⁵ Depreciation percentages are from attachment to SBC's Response to Joint CLEC Data Request 1.102. Fill Factors are from SBC's LoopCAT files for 2-wire analog loops.

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2486
2487 **[***END CONFIDENTIAL***]**
2488

2489 **Q. DID DR. QIN LIU EXPRESS AN OPINION AS TO WHETHER ALL**
2490 **DEFECTIVE PAIRS CONSTITUTE TOTAL NETWORK CAPACITY?**

2491 A. No, Dr. Qin Liu did not provide such detail in her rebuttal testimony. The only
2492 reference to defective loops in Dr. Qin Liu's testimony is the footnote that only a small
2493 portion of spare capacity is being built because of defective circuits.⁹⁶ As we have
2494 already noted, however, defective pairs constitute an unusually sizable portion of SBC's
2495 network. Further, this percentage appears to increase steadily over time. It is therefore
2496 important that the Commission understand that some defective circuits in SBC's
2497 network are *unusable*, and that SBC, from an engineering perspective, does not
2498 consider them valid sources of additional capacity (yet it includes them as such when
2499 calculating its "actual fill" factors). As a result, they cannot be included in any
2500 reasonable fill factor calculation.

2501
2502 **Q. HOW DO THE LOOP ASSIGNMENT DATA SUPPORT YOUR**
2503 **STATEMENT THAT NOT ALL DEFECTIVE PAIRS ARE USABLE?**

⁹⁶ *Id.*, p. 9, footnote 16.

2504 A. In addition to its fill study that contains data for January 2002, SBC provided similar
2505 information for other time periods in its responses to AT&T discovery questions. We used
2506 these additional data to trace changes in the number of defective pairs over time. The
2507 summary of this analysis is presented in the following table.

2508

2508 ***** BEGIN CONFIDENTIAL *****

2509 **Percentage of Defective Pairs for SBC Illinois over Time**⁹⁷

2519 ***** END CONFIDENTIAL *****

2520 The main point we observed as a result of our inter-temporal comparison is that the
2521 count of defective pairs increases not only in absolute value, but also as a percentage of
2522 usable and available pairs. In less than five years, the share of defective copper in the
2523 distribution plant grew by 2.7 percentage points, or 1.5 times. In other words,
2524 defective pairs grew faster than the number of available or usable pairs. While this is
2525 somewhat counter-intuitive because we expect that defects should decrease over time

⁹⁷ The percentages are calculated as defective pairs over usable pairs. Data source for 1997-2000 is the Excel attachment to SBC's Supplemental Response to AT&T Data Request MS-55. This file contains only copper distribution data for end-of-year (EOY). Data sources for October 2001 and September 2002 are files provided in SBC's response to AT&T Data Request BFP-249 *ILCurrentFillData2002 (Oct01).xls* and *ILCurrentFillData2002 (Sep02).xls*. The data source for January 2002 is SBC's fill study *ILCurrentFillData2002 (Jan02).xls*.

as the network is upgraded with modern equipment, we believe the answer to this puzzle can be found in the fact that SBC is currently in the process of over-laying its network with new technology. Hence, instead of repairing defective pairs, in the short term, it is simply replacing them with new technology, thereby causing a steady increase in both the absolute count, as well as percentage of defective pairs in the network.

Another important observation is that on a wire center level, the relative level of defective pairs among the wire centers is relatively stable such that wire centers that had the highest defective rates in SBC's fill study (January 2002 data) showed similarly high defective rates in other time periods. These observations suggest that SBC is not making a sufficient and systematic effort to restore its defective pairs, and that SBC's new growth is typically addressed by adding new pairs rather than restoring defective pairs. This is another reason that SBC's current actual fills are not representative of an efficient, forward-looking network.

Q. DID YOU REVIEW SBC'S PROCEDURES REGARDING RECOVERY OF DEFECTIVE PAIRS?

A. Yes, we did. In a recent data response,⁹⁸ SBC provided its current procedures for recovery of defective pairs. These procedures clearly state that: (1) SBC considers it uneconomical to recover certain defective pairs; (2) some defective pairs are assigned

⁹⁸ See SBC Response to AT&T Data Request MS-138.

status of *Universal Bad Pairs* – pairs that are determined uneconomical to recover and that are not considered spare capacity; (3) these Universal Bad Pairs (UBP) are still reported in loop inventory databases; and (4) even in the case of facility shortages, recovering defective pairs is low on the priority list of sources for the necessary capacity. Below are the excerpts from SBC’s procedure for *Bulk Defective Pair Recovery Process*⁹⁹ – SBC’s systematic process of increasing spare capacities through recovery of defective pairs instead of building new capacity (emphasis contained in source document).

Section 1.1:

As a general rule, it is not economical or necessary to clear defective pairs in cable complements where ample spare facilities exist or where no documented growth is predicted. Additionally, it is seldom economical to recover all defective pairs in a complement or location.

Section 1.2:

There are various definitions for UBP, however, **all** are based on cost to benefit for clearing. For this reason, a UBP will include, but will not be limited to:

- Single pair defects in underground and buried plant
- Defects in a cable section between manholes
- Defects intentionally created in the field to make other pair(s) good
- A UBP shall **not** be assigned or given as a candidate replacement pair for field use

⁹⁹ See SBC’s *Bulk Defective Pair Recovery Process*, AM-936-400-007 provided as Attachment 2 to SBC Response to AT&T Data Request MS-138.

- A UBP will be counted the same as a working pair
- A field technician may status a pair as UBP if it is determined to be uneconomical to recover

Exhibit 5: LFACS Defective Pair Administrative Guidelines:

The reestablished defective type "UBP" (Universal Bad Pair) is to be posted against the involved pair(s) when notified as such. However, any pair posted as UBP shall not be used or given as a candidate replacement pair.

Similar guidelines are contained in SBC's *Defective Pair Recovery Order (DPRO)*¹⁰⁰ –

SBC's process that applies when orders cannot be assigned because of a lack of facilities:

Section 4.2:

The criteria for a UBP status is based on the inaccessibility of a location and/or excessive work hours required for the defective pair recovery, i.e., single pair defect in the underground; defect in the cable section between manholes.

Q. HOW DO SBC'S OUTSIDE PLANT GUIDELINES AND PRACTICES TREAT DEFECTIVE PAIRS?

A. SBC's guidelines mention that defective pairs should be considered when providing the service. However, the guidelines also recognize that the recovery of defective pairs might not be practical or economically feasible. For example, the Bellcore *Loop Technology Planning* manual recommends to "clear defective pairs in whatever

¹⁰⁰ See SBC's *Defective Pair Recovery Order Process*, SBC-002-341-015 provided as Attachment 2 to SBC Response to AT&T Data Request MS-138.

quantities are economical.”¹⁰¹ The same Bellcore manual, as well as SBC’s own outside plant guidelines, prescribe that plant is to be reinforced when the assigned plus defective pairs exhaust spare capacity for distribution¹⁰² or exceed the predetermined Fill-at-Relief percentages for feeder.¹⁰³ In other words, the criteria to building additional outside plant do not treat defective pairs as a source of additional capacity, but rather as “unavailable” pairs.

The same SBC document contains a short section on the recovery of defective pairs.¹⁰⁴ This section prescribes targeting feeder and congested distribution compliments where defective pairs can provide for at least two years of growth (one year in rural areas and for distribution¹⁰⁵). This guideline implies that even in high-growth areas, recovering defective feeder pairs is a low priority for SBC if these pairs are insufficient to meet expected growth. Economically, this guideline is reasonable because recovering defective feeder cables is likely to require access to the feeder conduit along the feeder route, which might be too costly compared to adding new feeder cables (which does not require digging the ground and the conduit). The economical considerations behind

¹⁰¹ See *Bellcore Practice BR 916-100-017, Loop Technology Planning, Issue 2, June 1993*, pp. 5-11, provided in SBC’s response to Staff Data Request PL 1.24.

¹⁰² See SBC’s *Loop Deployment Policies and Guidelines*, Revised 9/15/00 (provided as an attachment to SBC’s response to Staff Data Request PL 1.25d), section 8.6.1.

¹⁰³ *Id.*, Section 7.4.1

¹⁰⁴ *Id.*, Section 7.5.

¹⁰⁵ *Id.*, Sections 8.6.1 and 8.6.2.

2614 this guideline probably explain why SBC has a much higher percentage of defective
2615 copper feeder cables compared to distribution cables.

2616
2617 Even SBC's 2002 Temporary guidelines for outside plant explicitly recognize that not all
2618 defective pairs can be recovered: these guidelines use the very term "*defective pairs that*
2619 *are not recoverable*" in its definition of the temporary trigger for plant relief.¹⁰⁶

2620
2621 To summarize, SBC explicitly identifies certain defective pairs as Universally Bad Pairs –
2622 pairs that cannot be recovered, and forbids assignment of service to these pairs. Therefore,
2623 it is improper to include these pairs in the calculation of usable capacity, the denominator of
2624 SBC's actual fill factor. The inclusion of these pairs in the denominator, as SBC has done,
2625 results in an understatement of fill factors and produces fill factors that are not
2626 representative of an efficient, forward-looking network.

2627
2628 **IVG. Unsustainable Levels of Fiber Feeder Fills**

2629 **Q. IN HIS REBUTTAL TESTIMONY, SBC WITNESS WILLIAM PALMER**
2630 **REVIEWS THE FILL FACTORS ADOPTED BY VARIOUS STATE**
2631 **COMMISSIONS. DOES HE PROVIDE ANY NUMBERS FOR FIBER CABLE**
2632 **FILLS?**

¹⁰⁶ See *SBC 2002 OSP Temporary Guidelines*, p. 1, provided in SBC's response to AT&T Data Request MS-87a.

2633 A. Yes, he does. Mr. William Palmer provides three examples of fill factors adopted for
2634 Bell South in Florida, Georgia and Tennessee. Mr. William Palmer explains that Bell
2635 South proposed, and the state commissions adopted, a 74% fiber feeder fill – the level
2636 that Bell South considered its actual utilization.¹⁰⁷ According to the description
2637 provided by Mr. William Palmer, these factors are achieved fills (after cable sizing), i.e.,
2638 they should be compared to SBC's fiber fill factors. This comparison is not favorable
2639 for SBC given the fact that its proposed fiber fills range between [*** XXXXXX%
2640 ***] depending on the zone, and are many magnitudes lower than what Bell South
2641 estimated.

2642
2643 **Q. PLEASE EXPLAIN HOW SBC DETERMINED THESE FILL FACTORS**
2644 **FOR FEEDER FIBER CABLE.**

2645 A. SBC calculated fills of its fiber cable as the product of the *fill on DLC chassis* (pair-
2646 gain equipment) and *the percentage of active fiber strands*.¹⁰⁸ The fill for DLC
2647 chassis was taken from the LEIS facilities data discussed above, but the evidence on the
2648 source of the percentage of active fiber strands is conflicting. Originally, SBC stated
2649 that this percentage was not based on embedded data.¹⁰⁹ SBC provided the underlying
2650 file that lists the number of active and installed fibers related to loop and entrance

¹⁰⁷ See rebuttal testimony of William Palmer, submitted January 20, 2004, pp. 25-6 and 29.

¹⁰⁸ This calculation is contained in SBC's LoopCAT files provided in the original filing (*IL 2w Analog LoopCAT 02-05.xls*) and revised in its January 20, 2004 filing (files such as *IL 2w Analog LoopCAT 02-05_RevJAN04.xls*). The fill is applied to the fiber feeder cable of low capacity loops priced by LoopCAT.

¹⁰⁹ See SBC's Response to AT&T Data Request BFP-335.

2651 facilities in a data response to AT&T.¹¹⁰ In a recent discovery response Mr.
2652 Smallwood named the source as SBC's Trunk Integrated Record Keeping System
2653 ("TIRKS").¹¹¹

2654
2655 The same data request asked SBC to explain why the installed fiber count in this file
2656 was much smaller than the counts reported by SBC Illinois in its ARMIS Infrastructure
2657 report 43-07 in both 2001 and 2002. The difference was [*** XX ***] times the
2658 ARMIS data reported for 2002. SBC responded that the discrepancy is not due to the
2659 different time periods, but because information in ARMIS does not represent actual
2660 data. Instead, ARMIS data is generated according to a certain formula. What remains
2661 unclear from this response is why SBC reports to the FCC data that is different (and
2662 significantly different) than its actual data.

2663
2664 Note that the ARMIS Infrastructure report shows that the number of installed fibers
2665 increased 1.5 times between 2000 and 2002, the latest year for which the data are
2666 available. Even if ARMIS fiber counts are calculated according to a formula, it seems
2667 logical to suggest that, however distorted, the ARMIS counts should reflect general
2668 changes in SBC's actual counts.

¹¹⁰ See Attachment to SBC's response to AT&T Data Request MS-28.

¹¹¹ See SBC's Response to AT&T Data Request MS-135.

2670 **Q. IS IT PROPER TO CALCULATE FIBER FILL ACCORDING TO SBC'S**
2671 **FORMULA?**

2672 A. No, it is not. The capacity of each fiber strand depends on the electronics installed at its
2673 ends. SBC's formula assumes that inactive fiber strands are to be equipped with the
2674 same pair gain devices as active strands. However, this is incorrect, particularly when
2675 applied to the case of the fiber feeder. For example, while 4 fiber strands would
2676 typically be assigned to a DLC system, because of the available cable sizes (a 4-strand
2677 cable not being one of them), a larger cable would be installed, such as a 6-strand
2678 cable. The remaining two cable strands will not be used in the same DLC system, but
2679 are more likely to be spares or will be used to provision other types of services, such as
2680 special access. When these additional strands are used, only by coincidence will these
2681 currently inactive strands be equipped with the same capacity as the DLC system.

2682
2683 **Q. WHAT ARE THE RESULTING VALUES OF FIBER FEEDER CABLE FILL**
2684 **FACTORS IN SBC'S LOOPCAT STUDY?**

2685 A. SBC calculates three factors depending on the zone. The zone variation is due to the
2686 differences in the fill factors for DLC chassis, not fiber strands, for which SBC assumes
2687 a single statewide percentage of [*** XXXX% ***]. The following table summarizes
2688 the fills of fiber feeder cable used by SBC. As the table demonstrates, calculation of the
2689 fiber cable fill according to SBC's formula (the product of DLC fill and the percentage

2690 of active fiber strands) results in absurdly low fills for fiber cable – ranging between

2691 [*** XXXXXX% ***].

2692

[*** BEGIN CONFIDENTIAL ***]

Feeder Fills in SBC's Loop Study

[*** END CONFIDENTIAL ***]

**Q. WHY ARE SBC'S FIBER FEEDER FILL FACTORS SO LOW,
ESPECIALLY WHEN COMPARED TO THE FILLS QUOTED FOR BELL
SOUTH IN MR. WILLIAM PALMER'S REBUTTAL TESTIMONY?¹¹²**

A. As we explain below in section IVH, such fill factors are unreasonably low, especially when taking into account the specifics of fiber technology. Assuming that SBC did not make an error in its counts of active and installed fiber strands, these factors can only be this low if the following is true: (1) SBC included excessive capacity that was either a result of significant over-estimation of demand in the past, or (2) SBC deploys facilities in anticipation of significant future growth. In the first case – an error in forecasting demand – this additional capacity has no place in a forward-looking design. In the second case – an anticipated surge in demand – the fills resulting from this excessive capacity cannot be considered forward-looking because *SBC expects the demand to grow and the fill factors to increase.*

¹¹² See rebuttal testimony of William Palmer, submitted January 20, 2004, pp. 25-6 and 29.

2712
2713 **Q. IN HIS REBUTTAL TESTIMONY MR. WILLIAM PALMER NOTES THAT**
2714 **FILL FACTORS TYPICALLY FALL AFTER A PERIOD OF SIGNIFICANT**
2715 **NEW CONSTRUCTION.¹¹³ DO YOU KNOW OF ANY SUCH**
2716 **CONSTRUCTION PROJECTS THAT COULD HAVE CAUSED SUCH LOW**
2717 **UTILIZATION LEVELS OF SBC'S FIBER FEEDER CAPACITY?**

2718 A. Yes. It is highly unlikely that the product in question would be voice service. What
2719 comes to mind is SBC's broadband initiative – Project Pronto -- that is aimed at
2720 providing broadband capabilities such as ADSL to SBC's customers.¹¹⁴ This initiative
2721 required accelerated deployment of fiber facilities. For example, responding to an
2722 AT&T data request,¹¹⁵ SBC confirmed that its calculation of fiber fill factors included
2723 fiber strands related to Project Pronto. SBC also admitted that Project Pronto required
2724 a deployment of *higher fiber strand counts* compared to non-Pronto DLCs,
2725 specifically, at a minimum, two additional fiber strands per DLC.¹¹⁶ In addition, Project
2726 Pronto places DLCs closer to customer locations,¹¹⁷ which again requires more fiber
2727 and reduces opportunities for concentration as compared to a non-Pronto design. Such
2728 placement implies that more DLC systems have to be deployed, which causes lower fills

¹¹³ *Id.*, p. 7.

¹¹⁴ See SBC's responses to AT&T Data Request BFP-27c, e and 28.

¹¹⁵ See SBC's response to AT&T Data Request BFP-440.

¹¹⁶ See SBC's response to AT&T Data Request BFP-27d.

¹¹⁷ See SBC's response to AT&T Data Request BFP-28.

2729 of DLC equipment. Further, SBC's broadband initiative is an overlay project, which
2730 means that SBC is placing additional facilities in the areas where there are already
2731 enough facilities to accommodate *all* the demand. These fiber facilities will eventually
2732 replace the existing copper as new customers are placed on the new facilities. This
2733 causes utilization of *copper* feeder to decrease during the transitional period.

2734
2735 Therefore, it appears that SBC's broadband project contributes to decreased fill factors
2736 for both fiber and copper, and that this decrease is temporary. The resulting low fill
2737 factors cause UNE prices to subsidize future broadband customers (and to simply be
2738 higher than warranted by TELRIC principles). Ironically, Project Pronto DLCs are
2739 incapable of supporting stand-alone UNE loops,¹¹⁸ which means that CLECs buying
2740 such loops would not be able to utilize SBC's upgraded network.¹¹⁹ By proposing to
2741 use these lower, transitional fills, SBC is forcing competitors to subsidize the service that
2742 SBC contends will not be unbundled. This is another reason why SBC's current actual
2743 fills are not representative of an efficient, forward-looking network.

¹¹⁸ See rebuttal testimony of Randall White, submitted January 20, 2004, p. 54.

¹¹⁹ See *In the Matter of Ameritech Corp., Transferor, and SBC Communications Inc., Transferee. Second Memorandum Opinion and Order*, CC Docket No. 98-141, ASD File No. 99-49. Released 9/8/00, paragraph 40.

2745 **IVH. Fill Factors From HAI Model**

2746 **Q. IN THEIR REBUTTAL TESTIMONIES, BOTH MESSRS. PALMER AND**
2747 **WHITE QUOTE FILL FACTORS GENERATED BY THE HAI MODEL.¹²⁰**
2748 **THEY PROVIDE FILL FACTORS FOR COPPER, BUT NOT FIBER.**
2749 **WHAT ARE THE FIBER FEEDER FILL FACTORS IN THE HAI MODEL?**

2750 A. Using Mr. William Palmer's terminology, the *input fill* for fiber feeder in the HAI model
2751 is 100 %.¹²¹ The *output* fill is lower because of the discrete cable sizing, though the
2752 model does not explicitly calculate this fill in its output. In fact, various parties in the
2753 industry agree that *apart from cable sizing*, the fill on fiber feeder should be 100 %.
2754 Among these parties are the FCC¹²² and, most notably, SBC itself.¹²³ This happens
2755 due to the specifics of fiber optic technology and the practice by which it is installed.
2756 For example, redundancy is already built into the DLC design because for every fiber
2757 installed, another redundant strand is also installed to account for any breakage. In
2758 addition, fiber cable capacity depends largely on the electronics at its ends and can
2759 easily be upgraded. Therefore, there is no need to install additional spare capacity for
2760 breakage, customer churn, growth or maintenance.

¹²⁰ See rebuttal testimony of William Palmer, submitted January 20, 2004, pp. 17-8; rebuttal testimony of Randall White, submitted January 20, 2004, p. 43.

¹²¹ See *HAI Inputs Portfolio*. Release 5.3. Section 2.4.

¹²² See *Memorandum Opinion and Order*. CC Dockets No. 00-218 and 00-251. Adopted August 28, 2003, paragraph 264 (*Virginia Order*); FCC *Tenth Report and Order*. CC Dockets No. 96-45 and No. 97-160, Adopted October 21, 1999, paragraph 208.

The main cause for spare capacity in fiber cable comes from discrete cable sizing. For example, in a typical design a DLC system requires a 4-strand fiber cable, but cable sizes only come in strand counts of 6, 12, 24 and etc.¹²⁴ In this case, an efficient design would be to install a 6-strand cable, so that the resulting fill would be $4/6 = 67\%$. If three DLC systems are serving the area, the segment of the feeder where the three routes join would require $4 * 3 = 12$ strands and can be served by one 12-strand cable, which is a 100 % fill. In other words, the available cable sizes allow the resulting fill to be no less than 67 %. Recall that SBC's statewide percentage of active fiber strands is [*** XXXX% ***]. This percentage implies that for a DLC with 4 fiber strands, SBC, on average, chooses a mix of 12 and 24 strand cables (to achieve an average of [*** XXXXXX XXX% ***]). Similarly, SBC's LoopCAT model assumes that a 24-strand or larger cable is placed for a DLC that requires 4 strands.¹²⁵ Clearly, cable sizing alone does not explain the magnitude of SBC's excessive spare capacity because available cable sizes allow SBC to always keep the fill above 67 %.

¹²³ See *Tenth Report and Order*. CC Dockets No. 96-45 and No. 97-160, Adopted October 21, 1999, paragraph 208: "Similarly, SBC asserts that fiber fill factors of 100 percent can be obtained because they are not currently subject to daily service order volatility and are more easily administered."

¹²⁴ See Attachment to SBC's response to Staff Data Request PL 2.24.

¹²⁵ See, for example, SBC's LoopCAT files provided in the original filing *IL 2w Analog LoopCAT 02-05.xls* and revised January 20, 2004 filing *IL 2w Analog LoopCAT 02-05_RevJAN04.xls*, sheet *Fiber_Cable_Unit_invst*, cells C25-E27 and E25-E27. Twenty-four strand cable is placed in rural zone.

2778 **Q. IN HIS REBUTTAL TESTIMONY SBC WITNESS MR. SMALLWOOD**
2779 **QUOTES DISTRIBUTION FILL FACTORS ADOPTED BY THE ARIZONA**
2780 **COMMISSION FOR QWEST TERRITORY¹²⁶ TO VALIDATE SBC'S**
2781 **PROPOSED FILLS. IS SUCH A COMPARISON RELEVANT?**

2782 A. Absolutely not. Population density is one of the main drivers of fill factors because
2783 dense customer locations create opportunities for concentration, thereby reducing the
2784 amount of spare cable. Illinois is a much more densely populated state than Arizona.
2785 The data in ARMIS Infrastructure report 43-07 reveal this obvious difference in the
2786 serving areas of SBC in Illinois and Qwest in Arizona. For example, in 2002 (the latest
2787 year available), total sheath cable distance per working channel was 1.6 times higher for
2788 Qwest in Arizona than SBC in Illinois.¹²⁷ In other words, Qwest needs, on average,
2789 1.6 times longer cables to provide one channel in Arizona compared to SBC in Illinois,
2790 which indicates that Qwest's customers are more dispersed than SBC's customers.

2791
2792 Similarly, it is improper to compare SBC's actual fills with fill factors in the State of
2793 Washington. Mr. William Palmer cited fill factors in his rebuttal testimony¹²⁸ that were
2794 proposed by AT&T, MCI and XO Communications for Qwest in Washington. Again,
2795 Qwest's serving territory in Washington is very different from SBC's territory in Illinois,

¹²⁶ See rebuttal testimony of Randall White, submitted January 20, 2004, p. 42.

¹²⁷ Calculated from ARMIS Infrastructure report 43-07 for Qwest-AZ and SBC-IL in 2002, Table II, row 320 over row 370.

¹²⁸ See rebuttal testimony of William Palmer, submitted January 20, 2004, pp. 17-18.

2796 with the total sheath cable distance per working channel also being 1.6 times higher in
2797 Washington compared to Illinois.¹²⁹ In addition, when comparing SBC's actual fill
2798 factors to the achieved ("output") fill factors produced by the HAI model, SBC
2799 witnesses do not account for the fact that facilities are counted differently in these two
2800 cases. For example, SBC's actual fill study counts copper feeder cable at the main
2801 distribution frame of the central office, while the HAI model counts it for every feeder
2802 segment. Sub-feeder cable segments (feeder cables that do not terminate at the central
2803 office) tend to have lower fill than the main feeder because of the reduced opportunities
2804 for concentration and economies of scale. As a result, feeder fills reported in the output
2805 file of the HAI model show lower fills compared to the fills that the HAI *would* calculate
2806 if it counted facilities according to SBC's methodology.

2807
2808 **Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

2809 **A. Yes.**

¹²⁹ Calculated from ARMIS Infrastructure report 43-07 for Qwest-WA and SBC-IL in 2002, Table II, row 320 over row 370.